ROLE OF THE VENTURE CAPITAL INDUSTRY IN THE AMERICAN ECONOMY

HEARING

BEFORE THE

SUBCOMMITTEE ON INTERNATIONAL TRADE,
FINANCE, AND SECURITY ECONOMICS

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

NINETY-SEVENTH CONGRESS

SECOND SESSION

SEPTEMBER 30, 1982

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON: 1982

J841-9

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(Created pursuant to sec. 5(a) of Public Law 304, 79th Cong.)

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ROLE OF THE VENTURE CAPITAL INDUSTRY IN THE AMERICAN ECONOMY

THURSDAY, SEPTEMBER 30, 1982

Congress of the United States,
Subcommittee on International
Trade, Finance, and Security Economics
of the Joint Economic Committee,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 2212, Rayburn House Office Building, Hon. Gillis W. Long (chairman of the subcommittee) presiding.

Present: Representative Long.

Also present: Louis C. Krauthoff II, assistant director; Charles H. Bradford, assistant director; and Kent H. Hughes and Robert Premus, professional staff members.

OPENING STATEMENT OF REPRESENTATIVE LONG, CHAIRMAN

Representative Long. The hearing will come to order.

The Chair would like to make a brief opening statement which will perhaps set the tenor for this hearing today.

High technology has captured the imagination of everyone from the American investor to the American filmmaker. Properly applied, robots and microprocessors can help maintain the competitive strength of America's basic industries at the same time as they change the lifestyles of all Americans.

Many factors have played a part in the emergence of America's high-technology success stories. The exploration of space and research on new weapons systems led to a number of innovations that had commercial applications. In many cases, the research activities of large corporations were also important. A large pool of scientifically trained people facilitated the rapid spread of new technologies.

What has often been overlooked is the crucial importance of the venture capital industry in this process. It takes more than a dream and an insight to bring a new technology to market. Fortunately a small group of businessmen have been willing to take large risks for the promise of even larger gains. In many cases, the venture capitalist must separate the good ideas from the bad, make a sound assessment of the business and scientific judgment of the people involved in it, and take a sounding of future market trends. The investments that have been made now are benefiting all of us and are our hope for the future.

Venture capitalists come in a variety of sizes and shapes. About 130 private venture capital companies and around 360 small business investment companies make up the bulk of the industry. More recently, large corporations, bank holding companies, and even pension funds have begun to set up venture capital subsidiaries.

In terms of dollars, the venture capital industry is not large. For many years the various venture capital firms managed a pool of $2.5 to $3 billion. Over the last 5 years, the pool of funds has almost doubled in size. Changes in the taxation of capital gains, new sources of funds, and the influx of some venture capital from overseas have all contributed to growth in venture capital.

Although small in terms of dollars, relatively speaking, the venture capital industry is large in terms of its impact on the American economy. The new high technology firms stimulated by venture capital contribute directly to growth, employment, and, of course, to exports. These firms are also often the source of innovations that raise the level of productivity of large segments of American industry. Venture capital is not just important to new high-technology industries. Thousands of new ideas, or whole new businesses look to the venture capital market for funds, for management, and for direction. America's venture capitalists are a vital resource in our effort to maintain the competitiveness of the American economy and to rebuild the dream of economic opportunity shared by all Americans.

Despite the pivotal role played by the venture capitalist, government policies in the past have been set with relatively little regard for their potential impact on the venture capital industry. This neglect cannot continue without adverse consequences, I believe, for all of us.

Today we are very fortunate to have with us four leading venture capitalists. I'm not sure our fourth gentleman is here.

Here he is. Mr. Heizer, will you join us at the table.

Mr. HEIZER. Sorry to be late.

Representative LONG. Don Gevirtz is, of course, chairman of the board and chief executive officer of the Foothill Group, Inc.; Mr. B. K. Hagopian is founder and general partner of Brentwood Associates; E. F. Heizer, Jr., is chief executive officer of Heizer Corp.; and Brent Rider is president and director of Union Venture Corp.

I have asked all of them to speak about the general role of venture capital and its importance to new high-technology firms. I have also asked them to assess the current and future problems of the industry and to suggest what changes should be made in public policy to alleviate those problems.

Thank you.

Senator Hawkins, although unable to attend today, has provided an opening statement for the record. I will submit the statement for the record at this point, without objection.

[The opening statement of Hon. Paula Hawkins follows:]

OPENING STATEMENT OF SENATOR HAWKINS

Venture capital markets play a pivotal role in the growth dynamics of the American economy. Venture capitalists serve the public by backing aspiring entrepreneurs who are willing to incur the market risks of introducing new products and services. The excess of business starts and expansions over business failure and contractions is the primary source of job growth in the U.S. economy. Venture capitalists contribute to job growth by stimulating business starts and expansions.

Venture capitalists also stimulate technological innovation in the U.S. economy. A large portion of the new companies that venture capitalists spawn are engaged in developing new process technologies, for example, computer aided design, industrial applications of lasers and robots, and computer numerically controlled tools. It is process technologies such as these that American industry is adopting to remain competitive in international markets. Economists estimate that technological innovation is responsible for about one-half of the growth in real GNP and about all of the growth in per capita output. Americans can expect a growing level of affluence only if American industry continues to innovate.

For these reasons, how well the venture capital markets perform their functions is of vital interest to the Nation. This hearing can serve a very useful purpose by bringing focus to the problems confronting the venture capital industry. A public discussion of these problems can lead to public policies to alleviate these problems and continued prosperity for the American economy.

Representative LONG. First, why don't we ask you if you'd be good enough to start off, Mr. Gevirtz, and if any of you would like any of your prepared statements to be made part of the record, without objection they will be made part of the record, and you can proceed either directly from that or in whatever manner you choose.

STATEMENT OF DON L. GEVIRTZ, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, FOOTHILL GROUP, INC., LOS ANGELES, CALIF.

Mr. GEVIRTZ. Mr. Chairman, my name is Don Gevirtz. I am the chairman of the board and chief executive officer of the Foothill Group, Inc., a Los Angeles-based financial institution with assets of approximately $300 million. The company provides credit to over 12,000 small and midsized businesses throughout the United States. I am also a member and director of the American Business Conference. Increasingly, through our lending activities, we have become involved with companies in which venture capitalists hold significant equity investments.

Venture capitalists are a remarkable group of people, and they have played a crucial role in the development of many of our most successful entrepreneurial companies. Yet, for all their foresight and entrepreneurial skills, they cannot be expected to bear single-handedly the highly risky task of financing entrepreneurs, who in my opinion constitute this Nation's best hope for restoring national prosperity and competitiveness in the world marketplace.

Like most speakers who come before you, I do have in my pocket some suggestions which might facilitate the capital flow to entrepreneurs. However, my first priority here today is to address my colleagues in the different segments of the financial industry. I believe deeply that there must be much closer cooperation between the venture capital industry and those asset-based lenders ready to help share the risks for entrepreneurial companies, or what I call venture lending. Venture lending simply means providing loans for expansion, working capital, or the purchase of equipment in companies where venture capitalists hold equity.

This kind of lending, in this context, can prevent dilution of venture investments—in essence, allowing the venture capitalist more equity bang for the buck. In other words, venture lending will provide incentives to the venture capitalists by sharing the burden of risk without taking a share of his or her investment. It will also provide entrepreneurs with three essential weapons needed for survival, particularly through the current economic gales: working capital, equipment leasing, and long-term credit.

Venture, by assisting venture capitalists and the companies in which they invest, can significantly contribute to reawakening the entrepreneurial spirit in America. Last year venture capitalists invested a record $1.4 billion in entrepreneurial companies, some $500 million for startups alone. Over the past few years, venture capital has midwifed some of the Nation's most spectacularly successful new companies, including Atari, Apple Computers, Tandem, and Prime Computers. These firms have been among the few bright spots in our Nation's dreary economic picture. Creating an atmosphere which encourages the financing of more such companies should be a No. 1 priority for anyone concerned about this Nation's long-term economic health.

But to contribute to our overall economic recovery, the venture capital industry cannot stand still and simply repeat the policies which have served it so long in the past. For historical reasons too complex to delve into here, venture capital has tended to concentrate in companies in areas related to high technology, such as computers, communications, and biotechnology. It has also displayed a distinct regional bias, favoring in particular States like California, Colorado, and Massachusetts. Thus, we have the odd situation of complaints of too much venture capital in places like Palo Alto in California and a complete dearth of such funds in towns like Kokomo, Ind., where I grew up.

These imbalances, I believe, must be addressed. One contribution venture lenders, such as Foothill, could make to the venture capital industry is that we have long had highly profitable relationships with old-line industrial firms in regions like the Midwest. We know that entrepreneurship and innovation knows no State boundaries. By providing capital for firms outside the high-tech hotbeds, I believe venture lenders could make certain entrepreneurial companies more attractive to venture capitalists for equity investments.

Although it is a wonder to behold such venture capital creations as Apple Computer, this Nation's long-term economic future lies with the unsung thousands of small- and medium-sized entrepreneurial companies which can be found in every industry and every State of this Nation. This is particularly true in the area of job creation. Firms employing under 500 workers created more than 86 percent of all new jobs in the United States between 1969 and 1976, according to studies conducted by MIT's Prof. David Birch. These figures are very valid. Perhaps even more remarkable, even in such economically hard-hit areas as Michigan, Birch has found that these small- and medium-sized firms have continued to create thousands of new jobs in recent years.

Similarly, small- and medium-sized firms long have been the Nation's most efficient producers of industrial innovations. Studies by the Office of Management and Budget, the National Science Foundation, and others have confirmed that individual inventors and small companies have produced far more of the major industrial innovations than large corporations over the last 50 years.

The implications of these statistics are clear. Small- and medium-sized entrepreneurial companies are perhaps our greatest national asset in combating our current debilitating unemployment and our increaingly desperate position in international competition, particularly with respect to Japan.

While Japan sorely lacks the entrepreneurial spirit of our small- and medium-sized firms, their companies have been able to outlast their American competitors through hard times due to their access to long-term capital. The Japanese Government, unlike our own, considers assuring capital to businesses—including small- and medium-sized firms—an important economic priority. This policy allows them to purchase the latest equipment and plan for the long run, much to the disadvantage of American companies.

The most glaring recent example of this deficiency in our capital markets occurred during the mid-1970's. As the economy faltered, the entrepreneurs in the American semiconductor industry found themselves unable to raise the capital necessary to modernize their facilities. The Japanese, on the other hand, were able to use long-term credit to withstand short-term losses, and they pressed ahead with the development of new technologies and ended up capturing the bulk of the lucrative 64K RAM market.

Today, history as usual, may be repeating itself. As the current recession has deepened, America's biotechnology companies have found themselves forced to scale back their research and development efforts. The Japanese, meanwhile, with their access to long-term capital, have been pressing ahead with their biotechnology projects and may soon surpass us in this field as well. This is according to recent information provided by Japan Pacific Associates in Palo Alto.

Venture lending could greatly assist meeting the needs of American companies—whether in biotechnology, computers, or steel fabrication—by providing credit to temporarily distressed entrepreneurs. Supplementing this, we should also turn to one of our most grossly underutilized potential capital sources—long-term debt. This kind of debt can be for terms as long as 20 years, and it's crucial in particular for the high technology companies with their massive equipment costs.

So far, I have concentrated on what the financial community should do to meet the needs of America's entrepreneurs. But we do not operate in a vacuum, and there is much the Government can do in helping us with our task. In other words, we could use a shove, as long as it's in the right direction.

Already in the State of California we have adopted some new approaches which might prove useful as the basis of future congressional action. The State, for instance, recently enacted legislation eliminating all capital gains taxes on small business investments held for at least 3 years. This new legislation could stimulate investment, as did the 1978 congressional capital gains reduction, and at the same time assure that those dollars are steered into productive purposes rather than into speculation or investments in collectables like paintings or 50-year-old wine bottles.

Another major thrust we are making in California relates to investments from pension funds, which nationally hold $800 billion in assets. Traditionally, due to some rather archaic and arcane perceptions of risk formulas, pension funds have been virtually prohibited from investing in small- and medium-sized companies and also venture capital pools. In recent legislation and on proposition 6, a measure on the November California election ballot, we have worked to open at least the $27 billion in public pension funds in our State to significant investments in venture capital and small entrepreneurial businesses. Given the experience of the last 10 years, if these investments are made in these businesses and venture funds, not only will California's economy flourish but the pension funds themselves will enjoy returns far in excess of what they have been receiving.

Indeed, in thinking about the primary importance of the entrepreneurs in our society, I think perhaps we should all look back to the history of economic progress since the beginning of the first industrial revolution in Great Britain. In that great economic transformation and the ones which followed it, the French historian Ferdinand Braudel has noted, the entrepreneurs, the small companies, have played the leading role. It was the lone-wolf manufacturer, not the aristocratic merchant prince, who brought the full weight of industrialism to Britain. So, too, was it the outsiders and tinkerers, men like Carnegie and Ford, who forged the age of steel and cars. And, more recently, it was individual entrepreneurs and venture capitalists who have within recent memory created the electronic revolution that increasingly dominates our life today.

Where the next great economic transformation will lead us, history cannot yet tell. But if we are to learn anything from Braudel, and from the past, it is likely that the coming economic revolutions will find their origins with small companies and entrepreneurs of today. Given that pattern, it seems imperative that both the financial community and this body dedicate ourselves to creating an environment conducive for those entrepreneurs so that when the tide of progress rises, it rises first and highest here in America. Thank you.

Representative Long. Thank you, Mr. Gevirtz. I appreciate your statement.

Mr. Heizer, we are glad that you made it.

Mr. Heizer. Again I apologize for being late.

Representative Long. Not at all. We are glad that you did make it, and you go ahead and proceed in your own manner.

Mr. Heizer. Could I perhaps suggest, not because I was late, but I think Mr. Rider would be a good person to speak next because he's chairman of the National Association of Small Business Investment Companies. In reading his statement he plans to put in the record some of the factual information on the industry. And I think if you had that base, then Mr. Hagopian and myself could shorten our remarks.

Representative Long. It is perfectly acceptable. Go ahead, Mr. Rider. I think you had a good suggestion, Mr. Heizer.

STATEMENT OF BRENT T. RIDER, PRESIDENT, UNION VENTURE CORP., LOS ANGELES, CALIF.

Mr. Rider. I am Brent T. Rider, president of Union Venture Corp., a small business investment company which is wholly owned by Union Bank and is located in Los Angeles. I am also chairman of the National Association of Small Business Investment Companies, a trade association which represents the overwhelming majority of all SBIC's.

Thank you for this opportunity to testify today as one of the representatives of the venture capital industry. As you know, Mr. Chairman, SBIC's are privately capitalized and privately managed venture capital firms which provide equity capital, long-term subordinated loans, and mangement assistance to new and growing small business concerns. SBIC's are licensed and regulated by the Small Business Administration under the Small Business Investment Act of 1958.

I shall begin with just a few words on SBIC's. Over the past 23 years, our industry has disbursed well over $4 billion to more than 50,000 small businesses. I am pleased to be able to tell you that our industry is more active than ever before. During 1981, SBIC's put out $333 million—up 12 percent from 1980, the previous biggest year. In the first 6 months of 1982, we invested $177 million, so we're ahead of last year's record pace.

So, despite the problems facing all segments of the economy, hundreds of SBIC's and thousands of small business owners are clearly bullish about the long-term future.

Representative Long. Say that again, would you please, Mr. Rider, the comparison with the 1980 and the 1981 and what you're doing this year?

Mr. Rider. Yes, sir. In 1981 the number was $333 million, which was up 12 percent from 1980, the previous biggest year. In the first 6 months of 1982, we have invested $177 million so we are still ahead of last year's record pace.

So despite the problems facing all segments of the economy, hundreds of SBIC's and thousands of small business owners are, as I said, clearly bullish about the long-term future. Those who supply venture capital and the entrepreneurs who utilize it believe that they can show a profit over the next 5 to 10 years. Both groups believe that innovative, well-managed small business can grow and be profitable.

The SBIC is a major component of the entire venture capital industry which also includes venture capital partnerships and corporations, and venture capital divisions of financial and industrial corporations. SBIC's have total resources of more than $1.5 billion, out of the industry's total of approximately $6 billion in private capital. Many SBIC's operate in exactly the same way as other venture capital firms, so I will seldom differentiate between them in my statement.

Union Venture Corp. was licensed in 1967 and today has total assets of $20 million. I have been its president and chief executive officer for the past 10 years after serving my apprenticeship with another SBIC in New York.

I might mention here that there is absolutely no relationship between our SBIC and the commercial loan department of the bank. Union Venture was formed for the sole purpose of earning a profit for its parent through venture capital financing and not for rounding up business for other parts of the banks. I am pleased to be able to tell you that Union Venture's operations have been highly profitable, particularly over the past half-dozen years.

We lean heavily to start-up and early-stage investments in high-technology firms, even though we have provided capital for firms in more mundane industries. Over the past 10 years, Union Venture has invested $18,250,000 in 69 different small firms. Of this total, almost $10 million was invested in 39 high-technology concerns. We disbursed $12 million in start-up situations. As you can see, 75 percent of our dollars went to begin new businesses. Of this amount, $8.7 million was invested in the start-up of 35 new high-tech companies.

I'd like now to depart from my prepared statement, first to summarize some statistics about the industry, and then to tell you about some of the companies that Union Venture has financed.

The venture capital industry, as I said earlier, today is a $6 billion industry, and is investing over $1 billion in emerging new businesses every year, an investment rate four times that of 7 years ago. We don't finance the totally unproductive multibillion-dollar megamerger fights. Instead, we finance productivity.

A study prepared a few years ago concluded that $100 of venture capital returns $15 in Federal corporate income taxes, $5 in State and local taxes, and $15 in employee taxes every year.

Another study concluded that my industry's help led to companies producing 10 times the employment growth of other small companies, 6 times the Federal tax payments, and 11 times the growth in sales and assets, as compared to other small companies.

Still a third study on the SBIC industry showed that it produces a job for an expenditure by the Federal Government of $312 versus a far greater number for such programs as CETA and other programs.

Now I'd like to briefly mention three companies which we have invested in to characterize the kind of things we do.

The first of these, Micro Peripherals, Inc. in California——

Representative Long. Excuse me again, Mr. Rider, because it's rather technical, and when we get into a general discussion I want to be able to ask the questions properly. Go back to what you were discussing with respect to the amount of Federal dollars invested in creation of the job, and how that worked, and explain to me if you would how those jobs are actually created by those firms related to you and how the Federal dollars are involved in it.

Mr. Rider. A study by Deloitte, Haskins & Sells concluded that the total expenditure of the Federal Government for the SBIC program was approximately $4 million per year. The total number of jobs produced resulted in their conclusion that it cost the Federal Government approximately $312 to produce one job.

Incidentally, as I said, that is considerably lower than is the $25,000 to $30,000 estimate that it costs the Government in other programs.

Representative Long. How is the Federal Government spending its money in the SBIC program now? I'm familiar with the beginning of the program and, as Mr. Stults knows, who was on the committee at the time that part of the legislation was being drawn, am fully supportive of it, but I had the understanding at the time that it was supposed to become self-supportive. Is this on the overhead that is required to carry the agency?

Mr. Rider. Yes, sir. It is composed of two components, Congressman Long. One, roughly half of it consists of the administrative costs of the program, which I believe are roughly $2 million. The other $2 million is the average loss experience that the Government has experienced over the 23 years that the loans have been made to SBIC's.

Representative LONG. Could you give me offhand what that runs percentagewise?

Mr. STULTS. Mr. Chairman.

Representative LONG. Mr. Stults.

Mr. STULTS. In 1979 when these figures came up, SBA had outstanding loans of SBIC's of $500 million, and it lost $2 million that year. So it was $2 million out of $500 million that it had at risk through its loans to SBIC's.

Representative LONG. Do you know how that has fluctuated, and does your organization, Mr. Rider, keep figures on that?

Mr. STULTS. SBA keeps all those figures, Mr. Chairman, and we just pulled them off the official Government report.

Representative LONG. Thank you.

Go ahead, Mr. Rider.

Mr. RIDER. Thank you, Congressman Long. Again I thought I could tell you, hopefully briefly, about three companies in which we have made investments which I think would be of interest to the subcommittee.

Representative LONG. If you would.

Mr. RIDER. The first of these, Micro Peripherals, Inc., was established in 1978 as a manufacturer of small computer peripheral equipment. It had $50,000 of sales in the year ending September 1978 when we made our investment. We put $1.25 million in that company at that time, along with three other partners. Subsequently we and other venture capital firms contributed another $4 million, for a total of a little bit over $5 million. That company, 4 years later, now has $42 million in sales, growing at a 70-percent per year rate, and is, incidentally, solidly profitable. It is competing successfully against two multibillion-dollar United States companies, a large Japanese company—and, incidentally, several more Japanese companies are about ready to enter the same market—a large German company, and many other American companies.

It is very successful. It is growing very rapidly, but it is starving for capital, and we are becoming tapped out. I would anticipate that although we will probably keep that company surviving, it may very well have to be sold to another company unless we have the good fortune of being able to take it public. Perhaps we'll have to sell it to the Japanese.

Another company, Gradco, is a manufacturer of sorters and collators for copying machines, selling to companies like Xerox in the United States and, in a unique twist, also to Minolta and Canon and C. Itoh from Japan. It was essentially a start-up when we invested a little over a year ago, and it's now selling its products at a rate of over $20 million a year. Incidentally, it is quite profitable.

Most of Gradco's money has come from United States venture capitalists, but we needed more and turned to Japan to get it. Incidentally, our experience with these Japanese investors, contrary to the popular press' portrayals, has been extremely good. They have been totally fair with us, and have been a very critical factor in this company's current success.

The final story is that of a company called Integrated Device Technology. Mr. Gevirtz mentioned the 64K RAM. This company does not make that particular product but something quite similar. It was absolutely a start-up when we invested. IDT at that time consisted of a topnotch integrated circuit designer from Hewlett-Packard, a topnotch process engineer from Ziglog, and literally nothing else, not even the proverbial garage from which these companies are customarily produced.

The company is now one of only three successful producers of 16K CMOS static random access memory chips in the world. The others are Hitachi and Toshiba. We are not afraid of their competition because our products are faster and better. These chips are critical for several defense projects, such as the Cruise Missile program, as well as for large numbers of civilian industrial applications. Companies like this take many millions of dollars to start, and IDT is not unusual. It's already taken nearly $12 million and will need at least another $3 million before it gets to a break-even.

We are ready to put in some of that money but will need to find other sources, too. And this, once again, is one of those companies that might have to turn as a last resort to Japan or at least to overseas sources for some of its money.

Representative LONG. This is attacking the same problem about which Mr. Gevirtz was speaking—long-term venture lending.

Mr. RIDER. Whether it be in the form of loans, Congressman Long, or be in the form of equity capital, as long as it's a long-term investment, the company would, I think, achieve its ultimate goals. I suspect in this case the money will go in the form of equity. However, it could be a loan as well.

These companies and others, we feel, will help to keep us strong and productive, and we certainly think should be encouraged. Yet, recent tax legislation is making the incentive stock option less attractive. The budget process is reducing Federal funds available for SBIC's. The SBA is promulgating senseless regulatory changes, and the Treasury is dabbling in academic and destructive definitions of debt and equity.

If you read GAO's report to Senator Bentsen on venture capital, you will see why I think that venture capital is good for all of us. And I would suggest to you that perhaps we ought to be careful that we do not kill the goose that continually lays the golden egg.

Representative LONG. Go back over these four activities of which you are critical and talk a little bit more about those for a moment, if you would.

Mr. RIDER. Yesterday afternoon I was, for the first time, made aware that recent tax legislation, contrary to the earlier change that we as an industry had been fighting for so long, had included the gains from the incentive stock option as part of the minimum tax preferences. Unfortunately, I am not completely aware of all the details of that since, as I say, it was just yesterday afternoon that I was made aware of it. I was, frankly, astounded.

The budget process in the case of SBIC's—even though the funds that SBIC's borrow are primarily with the Government's guarantee as distinguished from a direct loan—are nevertheless included as part of the budget authorization. The administration's proposals are to cut that authorization rather substantially in a way that we think would be detrimental to the venture capital process.

In addition to that, the SBA has recently promulgated regulations and administrative decisions which we believe will lead the venture capital industry, or at least the SBIC segment thereof, toward making its investments in the form of debt instead of in the form of equity, which we believe is contrary to the national interest as well as to the interests of the Congress.

And finally, the Treasury, as it has been now for several years, has been dabbling in attempting to define debt and equity. The definitions that the academics and the Treasury Department have come up with so far we believe would be totally destructure to small companies of the high-technology variety as well as those of the low-technology variety.

[The prepared statement of Mr. Rider, together with the studies referred to, follows:]

Prepared Statement of Brent T. Rider

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

I am Brent T. Rider, President of Union Venture Corporation, a small business investment company which is wholly-owned by Union Bank and is located in Los Angeles. I am also Chairman of the National Association of Small Business Investment Companies, a trade association which represents the overwhelming majority of all SBICs.

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Background on SBIC Industry

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Union Venture Corporation

Union Venture Corporation was licensed in 1967 and today has total assets of $20-million. I have been its President and Chief Executive Officer for the past 10 years after serving my apprenticeship with another SBIC in New York.

I might mention here that there is aboslutely no relationship between our SBIC and the commercial loan department of the bank. Union Venture was formed for the sole purpose of making a profit for its parent through venture capital financing, not for rounding up business for other parts of the bank. I am pleased to be able to tell you that Union Venture's operations have been highly profitable, particularly over the past haf-dozen years.

We lean heavily to start-up and early stage investments in high technology firms, even though we have provided capital for firms in more mundane industries. Over the past 10 years, Union Venture has invested $18,250,000 in 69 different small firms. Of this total, almost $10-million was invested in 39 high tech concerns. We disbursed $12-million in start-up situations -- so you can see that 75% of our dollars went to begin new businesses. Of this amount, $8.7-million was invested in the start-up of 35 new high tech companies.

Venture Capital and the U. S. Economy

Those of us in the business point with pride to the fact that the organized venture capital industry invested an estimated

$1.2-billion in 1981 and we expect to put about the same amount to work this year. That's impressive to us, because we remember that we disbursed only $250-million in 1975 and only $550-million in 1977. On the other hand, when we're operating in a $3-trillion national economy, the number of dollars committed to venture capital pales into insignificance. As a matter of fact, venture capital's entire capitalization of $6-billion wouldn't be enough to get us into some of the megamerger fights.

Nonetheless, I believe venture capital has a far greater impact on the economy than mere numbers would suggest. Almost every new business entering the high tech field during the past 20 years has received backing from one or more venture capital companies. A mere recital of the names gives an impression: Teledyne, Intel, Amdahl Computer, American Microsystems, Data General, Cray Research, Apple Computer, Genentech -- those are only a few from the hundreds which could be cited.

Calling the names of the big winners is dramatic, but certainly more persuasive are the results of several studies completed during the past four years, because the surveys demonstrate that venture capitalists are more than lottery players who occasionally come up with the one out of a million winning ticket.

The American Electronics Association (AEA) conducted a study of its members in 1977 and 1978 and found that $100 of venture capital invested in new businesses formed between 1971 and 1976 were already returning this much to the U.S. economy by 1976: $15 in Federal corporate income tax; $5 in state and local taxes, $15 in Federal taxes paid by new employees, and $70 in new export sales. Incredible -- the Federal Government received $30 in new income taxes in 1976 as a result of $100 invested by venture capitalists in the preceding five years. Remember: the taxes continued; the investment was a one-time injection.

The AEA survey also showed that growing new companies could not finance their growth through internally-generated dollars; they needed continuous injections of risk capital.

You'll recall also that the AEA report came in the nick of time, because President Carter had just asked the Congress to remove completely the tax preference given to long-term capital gains. After members of Congress read the AEA study and talked with hundreds of entrepreneurs and venture capitalists, they turned their back on the Carter proposal and, instead, cut the capital gains tax rate almost in half. Thanks to the support of many of the members of this Committee and others in Congress, our industry received a tremendous shot in the arm. The overall venture capital industry is twice as big as it was five years ago and so is the SBIC segment of the industry.

In 1980, NASBIC commissioned the accounting firm of Deloitte, Haskins & Sells and the consulting firm of Arthur D. Little, Inc. to undertake a study of the economic impact of SBIC financing. Their analysis concluded that companies financed by SBICs: (1) generated more than 10 times the employment growth of all small business; (2) 11 times the growth in sales and assets; and (3) 6 times the increase in Federal tax payments. Furthermore, this study showed that 91% of the growth was internally generated -- not through mergers. Finally, the survey demonstrated that 32% of the small businesses were start-ups when the first SBIC investment was made.

As a follow-up to the first survey, NASBIC asked Deloitte, Haskins & Sells to analyze the cost of the SBIC program to the Federal Government, as well as the benefits gained by Uncle Sam. The results of this study were equally impressive: The Federal Government spent $4-million on the SBIC program in 1979, the last year for which data were available ($2-million to administer the program and $2-million in losses on its loans to SBICs). In return, the United States received a total of $440-increased taxes from the SBICs, portfolio companies, and their employees. We feel that a 110-to-1 ratio is pretty darned good!!

Finally, the accounting firm undertook one final task: it computed the cost of creating a permanent new job through the SBIC program and found that the cost was $312 per job. We, quite naturally, are also mighty proud of that achievement.

Mr. Chairman, I have copies of the three studies and submit them for the Subcommittee's use.

Although not specifically the subject of your hearings today, I might mention that many other nations are convinced that the U.S. venture capital industry sets a pattern which they wish to emulate. Dozens of delegations have come to this country from Europe and Japan in the hope that they will also be able to reinvigorate their own economies through venture capital financing. I sometimes have the feeling that the SBIC program is better understood in London, Stockholm, and Tokyo than it is in Washington. I trust this hearing will contribute to our Government's comprehension of the impact of venture capital.

Challenges for the Future

I am glad Chairman Long specifically asked the witnesses to comment on problems currently facing the industry and recommendations we have for increasing our effectiveness. Up to this point, my testimony has stressed the good we have done and the expansion in our activities, but this is only part of the story. I believe strongly that the U.S. economy could use five or ten times as much venture capital as it has today. It may be true that the number of professional venture capitalists puts a cap on our operations, but I am certain we could train many more if we were certain that public policy would continue to lay a heavy stress on both venturing and capital formation.

Our overall challenge, then, is to expand greatly the number of dollars invested in SBICs and other professional venture capital firms. This will happen if Federal policies (some of which I'll mention below) create an environment in which entrepreneurs and venture capitalists can operate profitably.

Now let me give you examples of specific instances impacting on the vigor of our industry:

1. Tax laws: I've already mentioned the critical nature of the level of Federal tax levels on capital gains. When they were doubled in 1969, venture capital died; when they were halved in 1978, our industry burst into bloom. The 1981 tax law contained a further reduction in capital gains taxes for individuals (while retaining the 28% top levy for corporations -- surely a mistake). In addition, the 1981 act liberalized the capital cost recovery system, thereby allowing growth firms to plow more of their revenues back into the business. As an aside, NASBIC

supported the 1982 tax law on the grounds of reducing deficits, but we are sorry so much of the incentive for capital formation for business was pulled back. Another part of the 1982 law is most unfortunate: the curtailment of the value of stock options. Along with other segments of the small business community, NASBIC fought for the reestablishment of qualified stock options in the 1981 law, because this is so important for new and growing businesses. Such firms cannot compete for talented and highly-motivated managers on the basis of salary and fringe benefits -- established companies have the bucks, but growth concerns don't. The 1981 act was a great step forward; the 1982 law was an unfortunate reversal.

Incidentally, I think the Congressional action on options this year reflects the all-too prevalent lack of sensitivity on small business issues -- and the inability of small business to tell its story effectively. Monday's Wall Street Journal reported on nearly-completed action on legislation which would take care of the tax problems of three California utilities. As a resident of that state, I welcome the legislation, but only wish that the voices of thousands of small firms could ring as loudly in the halls of Congress as did the pleas of these three corporations.

2. Debt-equity rules: Over the past three years, the venture capital industry has spent a major share of its efforts (and many, many dollars) to turn back the Treasury Department's unrealistic definition of what constitutes debt and what is equity for tax purposes under Section 385 of the Code. The first proposal, published back in 1980 would have devastated small

business and made it all but impossible for venture capitalists to invest in new and growing firms. Subsequent versions were improved somewhat, but even the most recent one (now scheduled to become effective on April 1, 1983) will subject both our portfolio companies and us to such complexities and such uncertainties that I predict that the flow of venture capital to such businesses will slow to a trickle. The Treasury Department refuses to give credence to such problems; its entire concern focuses on the possibility of tax avoidance by insiders making "loans" to their own firms.

3. ERISA Problems: The Employees Retirement Income and Security Act (ERISA) was enacted to protect the benefits of workers covered by private pension plans -- surely an admirable goal. Here again, though, unintended harm resulted as the Department of Labor officials focused on one aspect of their responsibility and overlooked the fact that their decisions would cut off the flow of venture capital into small business. First, our industry fought successfully against ERISA's "prudent man" rule, and we are now hoping that ERISA will redefine "plan assets" in such a way that pension fund managers are not precluded from investing in venture capital funds. I must say that the people at the Labor Department have been most cooperative over the past several years, but each of these proposals has forced our industry to drop everything for a long period of time and devote all our efforts to warding off Washington evil, rather than pursuing new investments -- or helping some portfolio companies fight off the sheriff.

4. Availability of Leverage: For most SBICs, the major reason to be licensed, rather than to operate as an unregulated venture capital company, is the ability to borrow from SBA. In the early days of the program, this borrowing, or leverage, was often unavailable for long periods of time, but the procedure which Congress and SBA adopted in 1971 meant that well-run SBICs were able to count on obtaining leverage after they had invested all their dollars. This was an important factor in their ability to make additional financings and to have the resources to make follow-up investments in existing portfolio companies. In fiscal 1981, SBA did not have sufficient authority to cover all leverage requests and was forced to use an allocation mechanism. The same course was necessary this fiscal year and the outlook for the fiscal year beginning tomorrow is even bleaker. The House and the Senate Small Business Committees recognized the problem and both have supported a substantial increase in SBIC authorization for fiscal 1983, but the enabling legislation which passed the House has been held up in the Senate. For that reason, every SBIC must husband its resources, because it cannot be certain that SBA will have the authority to approve leverage for them during the coming 12 months. NASBIC is working on a design for a long-term solution to this problem, but, in the meantime, is hoping that Congress will approve SBIC authorization for the next several years in an amount which will guarantee the flow of venture capital funding to new and growing businesses.

As a footnote to this portion of my testimony, I call the Subcommittee's attention to a Report recently completed for the full Joint Economic Committee by the General Accounting Office. Entitled "Government-Industry Cooperation Can Enhance the Venture

Capital Process", this Report was submitted to the Committee on August 12, 1982. I saw a copy of the document for the first time a few days ago, but I can say that I agree completely with its findings.

For the last decade, all of us have been concerned about the Nation's ability to compete in the world market, largely because of our declining productivity. The GAO report, based on a study of some 1,332 companies which had received $1.4-billion in venture capital, estimated that 61% of those funds were invested in "productivity-related products and services". It's apparent that our investments (which are made in search of a profit) turn out to be focused very specifically on public policy goals of a high priority.

Let me end my own statement by quoting the GAO's conclusions: "Venture capitalists seek out new technology, entrepreneurial talent, and management resources and combine them for new business opportunities that have significant market growth potential. Compared to the amount of capital invested to create fast-growing, high-technology businesses, this small segment of the U. S. economy has produced disproportionately large benefits to the Nation's productivity and economic well-being. ... The venture capital industry is very sensitive to Government policies, rules, and regulations. Industry and Government should work together to identify pertinent issues and suggest actions needed by either or both sides to create the greatest likelihood of a successful venture capital process in an environment of increasing capital supply."

Thank you.

Deloitte
Haskins + Sells
USA

Cost-Benefit Study of the Small Business Investment Company Program

Performed for the National Association of
Small Business Investment Companies

October 1981

Summary and Conclusions

The Small Business Investment Act was created by Congress in 1958 to establish a program to provide equity and investment capital to small and medium-size companies. The Small Business Investment Company ("SBIC") program has provided financing to over 40,000 companies since its establishment. A previous study by Deloitte Haskins & Sells and Arthur D. Little, Inc. indicated the phenomenal growth of these SBIC-financed companies ("portfolio companies") and their contributions to the national economic and employment goals. As this study demonstrated, companies receiving SBIC funds have created growth in employment, sales and assets ten times greater than that of other small firms. The average growth rate of Federal tax payments of SBIC portfolio companies is over five times that of other small firms.

The successful results of the SBIC program are apparent; however, the cost of government programs to the taxpayer has become a topic of increasing concern. Remarkably, the Small Business Investment Company program does not cost the taxpayer because Federal tax revenues resulting from the program substantially exceed the program cost. This conclusion is based upon a study we conducted of SBICs and their portfolio companies covering the 1979 fiscal year.

To measure the benefits to the government of the SBIC program, "benefits" were defined as taxes paid by the following entities to the Federal government attributable to the SBIC program:

- Small Business Investment Companies
- portfolio companies, and
- employees of SBIC portfolio companies

This resulted in annual tax revenues to the Federal government from the program as follows:

	Millions
SBICs	$ 7.7
Portfolio companies	251.2
Employees of portfolio companies	182.4
Total	$441.3

The annual cost to the Federal government of the SBIC program includes the cost of administering the program and the loan losses experienced by the government as follows:

	Millions
Administrative costs	$ 2.1
Loan losses	1.9
Total	$ 4.0

Thus, SBIC program costs of $4 million for 1979 generated tax revenues received by the Federal government of over $440 million, a direct return to the Federal government of $110 for each dollar spent.

The results of this study demonstrate that the SBIC program has benefited both the Federal government and the private sector at no cost to the taxpayer.

Study Scope and Details

The purpose of our study was to evaluate the costs and benefits to the Federal government of the SBIC program. Deloitte Haskins & Sells had previously surveyed all portfolio companies as part of a joint study with Arthur D. Little, Inc. of the economic impact of the SBIC program. We used this survey data and information drawn from government documents to determine the various costs and benefits covered by this study. The data compiled did not include Section 301(d) SBICs (Minority Enterprise SBICs).

The calculations of costs and benefits and the underlying assumptions are explained as follows.

Taxes Paid by SBICs

The SBIC Digest Annual Financing Summary (May 1980) covering the 1979 fiscal year showed total Federal taxes paid by SBICs amounted to $14.3 million. A ratio of capital provided by the Small Business Administration ("SBA") to total capital of the SBICs was calculated to derive a government leverage factor of 54%. This factor was then applied to the $14.3 million to determine that taxes of $7.7 million were attributable to government financing.

The use of this leverage factor was based on the assumption that private capital would have been invested elsewhere and would have generated tax liabilities, but that leverage provided by the government and the resultant taxes could be specifically attributed to the SBIC program.

Taxes Paid by Portfolio Companies

Companies responding to our 1979 survey indicated taxes paid in the most recent fiscal year. To measure the portion of taxes attributable to SBIC financing, a factor based on their total assets and SBIC financing was developed.

For each portfolio company, total SBIC financing and total assets prior to that financing were used to determine the percentage of assets financed using SBIC capital. The assumption was made that the SBIC financing was used to acquire additional assets rather than to retire existing debt; this seems reasonable in light of the growth nature of most portfolio companies. Total assets financed through SBIC funds as a percentage of total assets was applied to each portfolio company's most recent annual tax liability to determine taxes paid attributable to SBIC financing. Use of this method is based upon the assumption that assets generate profits and, consequently, income taxes.

Since this calculation of taxes attributable to SBIC financing could only be performed for companies responding to the survey, an extrapolation was made to the entire population of SBIC portfolio companies. The respondents paid taxes of $45.3 million which were attributable to SBIC financing. The extrapolation of these results to the entire SBIC population amounted to $251.2 million.

Taxes Paid by Employees of Portfolio Companies

Companies responding to the survey also indicated the number of employees in the year prior to SBIC financing and in their most recent fiscal year. The percentage of this employment increase attributable to SBIC financing was determined in the same manner as taxes paid by portfolio companies. This attribution method was based upon the assumption that SBIC financing made assets available for growth and employment increases. The employees attributed to SBIC financing were assumed to earn an average wage of $244 per week (Bureau of Census Statistics) and to pay taxes based upon a single-income household and a median family size (2.78 persons). These employees earned $304.9 million net of Federal income tax payments and paid taxes of $32.9 million. When extrapolated to the population of all SBIC companies, the SBIC-funded employment increase resulted in earnings of $1.692 billion by the workers and $182.4 million in Federal income tax payments.

Costs of the SBIC Program

Direct personnel costs of administering the SBIC program amounted to $1,041,000 for the fiscal year ended September 30, 1979 with indirect costs amounting to an additional $1,041,000. Indirect costs were estimated based on an SBA study indicating that indirect costs amounted to 100% of direct costs. Actual loan losses for 1979 were $1,914,000. Although losses can vary significantly from year to year, this amount approximates the average annual losses for the five preceding years.

The program's administrative costs are small for the economic activity involved because the Small Business Administration need only license and regulate approximately 350 SBICs; each SBIC provides financing and management assistance to an average of 15 small companies. Government loan losses are minimized because the entire private capital of an SBIC must be exhausted before the government loses any money. Combining administrative costs and loan losses, the total costs of the program were $3,996,000.

Cost-Benefit Analysis and Other Observations

The total benefits in terms of taxes paid resulting from the program amounted to $441.3 million compared with costs of $4 million or a benefit to cost ratio of 110. Additionally, the following observations should be noted about the benefits and costs of the SBIC program:

- Many large and successful companies funded by SBIC financing and responsible for large Federal tax payments may not have been covered in the 1979 survey because they had outgrown the need for SBIC financing. Exhibit I lists twelve of the most successful SBIC-financed companies.
- No attempt was made to quantify the "multiplier effect" of the portfolio companies on the rest of the economy.
- The substantial employment increase resulting from the growth of portfolio companies would reduce transfer payment such as unemployment insurance and other Federal benefit programs. This effect has not been quantified.
- Taxes paid by employees of SBICs were not included in the survey; the amount was difficult to determine and was not considered significant to the results of the study.

Exhibit I

Growth in Sales/Revenues

	Before SBIC Financing		*Latest Financial Information*	
	Date	*Annual Sales*	*As of Date*	*Annual Sales*
Company Name		*$ (in millions)*		*$ (in millions)*
Advanced Micro Devices, Inc.	July 1969	—0—	Mar. 1981	309.4
Amdahl	Oct. 1972	—0—	Dec. 1980	394.4
American Microsystems, Inc.	July 1966	—0—	Dec. 1980	129.3
Computer and Communication Tech.	Oct. 1969	—0—	Dec. 1980	46.3
Federal Express	Oct. 1973	6.8	May 1981	589.5
Four-Phase Systems, Inc.	Feb. 1969	—0—	Dec. 1980	197.2
Intersil, Inc.	Jan. 1971	3.7	Sept. 1980	166.4
Memorex	Apr. 1961	—0—	Dec. 1980	768.7
Microform Data Systems	Aug. 1968	—0—	Aug. 1980	25.2
Storage Technology	Jan. 1971	—0—	Dec. 1980	603.5
Teledyne, Inc.	Feb. 1963	10.4	Dec. 1980	2,926.4
Tymshare, Inc.	Apr. 1966	—0—	Dec. 1980	235.9
Total for Group		$20.9		$6,392.2

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THE COST TO THE FEDERAL GOVERNMENT TO INCREASE EMPLOYMENT THROUGH THE SMALL BUSINESS INVESTMENT COMPANY PROGRAM

A previous study by Deloitte Haskins & Sells and Arthur D. Little, Inc. indicated the phenomenal growth of SBIC - financed companies ("portfolio companies") and their contributions to the national economic and employment goals. As the study demonstrated, companies receiving SBIC funds have created growth in employment ten times greater than that of other small firms. Remarkably, this job creation has occurred at a very minor cost per job to the Federal government. This conclusion is based upon the following data.

The cost to the Federal government of the SBIC program includes the direct and indirect cost of administering the program and the loan losses experienced by the government. During the period 1970 to 1979 these costs were as follows:

	Million
Administrative cost - direct	$ 9.3
Administrative cost - indirect	9.3
Loan losses	27.5
Total	$46.1

These expenditures created an increase in employment of 147,730 jobs in portfolio companies during the same period.

Thus, SBIC financing resulted in an employment increase at the cost of $312 per new job created.

This demonstrates that the SBIC program can create jobs and contribute to national employment goals at a very minor cost to the government.

Study Methodology

Indirect costs were based on an SBA study indicating that indirect costs amounted to 100% of direct costs.

The progam's administrative costs are small for the economic activity involved because the Small Business Administration need only license and regulate approximately 350 SBICs; each SBIC provides financing and management assistance to an average of 15 small companies. Government loan losses are minimized because the entire private capital of an SBIC must be exhausted before the government loses any money.

The increase in employment was measured by a previous study by Deloitte Haskins & Sells and Arthur D. Little. To measure the employment increase attributable to SBIC financing, a factor based on total assets and SBIC financing was developed. For each company responding to the survey, total SBIC financing and total assets prior to that financing were used to determine the percentage of assets financed using SBIC capital. The assumption was made that the SBIC financing was used to acquire additional assets rather than to retire existing debt; this seems reasonable in light of the growth nature of most portfolio companies. Total assets financed through SBIC funds as a percentage of total assets was applied to each company's employment increase to determine the increase attributable to SBIC financing. This attribution method was based upon the assumption that SBIC financing made assets available for growth and employment increases. The employment increase attributable to SBIC financing in the surveyed companies was calculated to be 26,618.

Since this calculation measured only the increase attributable to SBIC financing for companies responding to the survey, an extrapolation was made to the entire population of portfolio companies. This extrapolation was based upon the SBIC financing provided to the companies responding to the survey ($312 million) compared to the total SBIC financing provided to all companies. Since substantially all companies responding to the survey had received their SBIC financing in the period 1970 through 1979, total SBIC financing to all companies for that ten year period ($1.734 billion) was used for extrapolation to the entire SBIC population. Extrapolated to the entire population of portfolio companies, the employment increase attributable to SBIC financing was 147,730.

SUMMARY OF
THE ECONOMIC IMPACT OF THE SMALL BUSINESS INVESTMENT COMPANY PROGRAM

A Study Performed By
DELOITTE HASKINS & SELLS
And
ARTHUR D. LITTLE, INC.

NATIONAL ASSOCIATION OF SMALL BUSINESS INVESTMENT COMPANIES

INTRODUCTION

The Small Business Investment Act was passed in 1958 to establish a program to help fill the equity gap which according to Congress posed a serious threat to the vitality of our free enterprise economy.

The Small Business Investment Company ("SBIC") program established by that act was founded on the premise that a partnership between the Federal Government and the private sector could be effective in meeting a public policy goal. SBICs have always been privately capitalized, privately-managed firms licensed and regulated by the Small Business Administration. The particular genius of the program is that the private owners of SBIC's are exposed to 100% loss of their capital before the Federal Government loses a penny.

To determine the effectiveness of the SBIC programs, the National Association of Small Business Investment Companies ("NASBIC") sponsored a detailed study that measured the impact of SBIC portfolio companies on the economy. We've summarized the conclusions in this brochure. Copies of the complete report are available from NASBIC. This study was structured and analyzed by the highly respected consulting firm, Arthur D. Little Inc., with the assistance of Deloitte Haskins & Sells, the international accounting firm.

The results of this survey prove that this partnership between the Federal Government and the private sector has been extremely effective in bolstering the national economy.

NASBIC Economic Survey

PROVES SBIC INVESTMENT CREATES JOBS, ECONOMIC GROWTH!

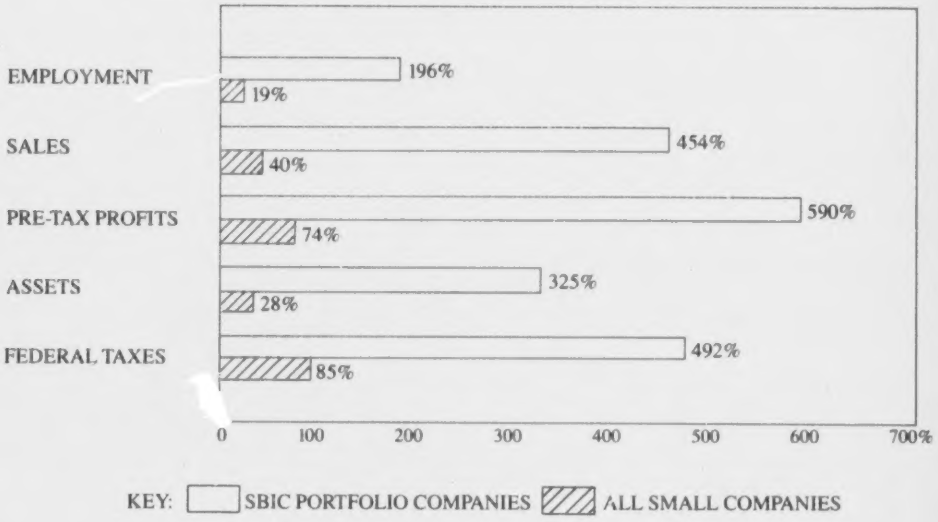
- Key economic impact measures of SBIC portfolio companies outpace the performance of small business as a whole by more than 9 to 1.
- Between time of financing and most recent fiscal year, SBIC employment increased by a factor of 2.4.
- SBIC employment growth proves to be internally generated and not the result of mergers or acquisitions.
- SBICs are doing start ups. 32% of the companies in the survey were new companies at the time of initial SBIC financing.

SIGNIFICANT CONCLUSIONS

The results of the NASBIC study accentuate the fact that companies receiving SBIC funds have significantly outperformed other small companies as well as nearly all the major equity indices for large companies. One need only review these statistics to understand the tremendous impact of SBIC portfolio companies on the nation as a whole.

FIGURE 1

AVERAGE GROWTH OF SBIC PORTFOLIO COMPANIES
COMPARED WITH THE AVERAGE GROWTH OF ALL SMALL COMPANIES



The study concludes:

1. Companies financed by SBICs have generated more than ten times the employment growth of all other small companies (See Figures 1 and 2).
2. These companies produce jobs for a small *one time* investment, whereas various estimates indicate that the government spends up to $25,000 to create a job, and that amount must be spent every year.
3. SBICs are empowered to borrow funds at market rates with the government's guarantee. Only $3,500 of this borrowing creates a job, at no cost to the government.
4. The growth rate of Federal tax payments of companies financed by SBICs is over 5 times that of all small companies.
5. Fully 91% of this impressive performance has come from internal growth, not from mergers and acquisitions.
6. Of all investments made by SBICs, 92% were all or part in the form of equity capital.

FIGURE 2

AVERAGE ANNUAL GROWTH OF SBIC PORTFOLIO COMPANIES VERSUS GROWTH RATE OF ALL SMALL COMPANIES

Key Economic Impact Measures	Pre-1972 Through Fiscal 1978/79		1972/75 Through Fiscal 1978/79		1976/77 Through Fiscal 1978/79	
	SBIC Portfolio Companies	All Small Companies	SBIC Portfolio Companies	All Small Companies	SBIC Portfolio Companies	All Small Companies
Employment	21.8%	3.2%	20.6%	3.6%	21.8%	3.7%
Sales	33.2%	7.4%	37.2%	4.9%	34.4%	7.9%
Profits	37.3%	16.5%	40.8%	4.6%	23.4%	23.9%
Assets	30.0%	5.5%	23.6%	4.4%	38.5%	6.3%
Federal Corporate Taxes	30.5%	11.8%	49.7%	10.9%	36.0%	20.0%

*For SBIC's, growth rates are measured from the year prior to SBIC financing to the most recent fiscal year. For all small companies, the comparison is from 1970, 1973 and 1976 to 1978.

Source: Federal Trade Commission, *Quarterly Report of Manufacturing Corporations*, U.S. Bureau of the Census, *County Business Patterns* and Arthur D. Little, Inc., estimates.

The most important conclusion of the entire study is that SBIC investments produce jobs. In the companies studied which have been financed by SBIC funds, a job can be created for an investment of less than $6,500 (See Figure 3). This is not an annual expenditure but instead a one-time investment which need not be repeated.

FIGURE 3

EMPLOYMENT INCREASES AND SBIC FINANCING
(Dollar Amounts in Thousands)

Employment Size at Time of Initial Investment	Employment Increase	Total Amount of SBIC Financing	Increase in Employment Per $1 Million of SBIC Financing
0 employees	13,303	$ 53,064	251
1-20 employees	3,413	$ 40,121	85
20-49 employees	5,201	$ 35,586	135
50-99 employees	5,788	$ 49,033	118
100 or more employees	19,224	$125,487	153
TOTAL	46,929	$303,291	155*

*$303,291,000 ÷ 46,929 jobs = $6,463 per job.

As of December 31, 1980, the Federal government has lent or guaranteed $750.3 million in loans to SBICs. SBICs have raised $624.9 million in private capital (Source: SBA).

SBICs produce benefits other than employment, too. In every criterion studied — employment, payroll, sales, profits, assets, net worth, taxes, and R&D expenditures — SBICs have been remarkably successful in producing outstanding performance (See Figure 4).

FIGURE 4

SELECTED INDICATORS OF ECONOMIC PERFORMANCE
(Dollar Amounts in Millions)

	Pre-SBIC Financing	Most Recent Fiscal Yr.	Increase
Employment	34,077	81,055	46,928
Payroll	$ 243	$ 752	$ 509
Sales	$ 1,136	$ 4,176	$ 3,040
Pre-Tax Profits	$ 18	$ 206	$ 188
Assets	$ 925	$ 2,760	$ 1,835
Federal Corporation Taxes	$ 21	$ 89	$ 68
State and Local Taxes	$ 7	$ 21	$ 14
R&D Expenditures	$ 32	$ 82	$ 50
Net Worth	$ 171	$ 821	$ 650

The average growth rate of Federal tax payments of SBIC financed companies is over 5 times that of other small companies. SBIC portfolio companies become substantially more efficient and more profitable than other small companies and, accordingly, produce a significantly increasing share of Federal tax revenues.

SBIC portfolio companies are independent and grow on their own wits, not financial muscle. Fully 91% of the growth of companies that SBICs finance has come from their own internal development. Only 9% of it comes from acquisition. Furthermore, of all SBIC portfolio companies, 92% received a form of equity funds (See Figure 5). Only 8% of the total funds provided consisted of straight debt.

FIGURE 5

TYPE OF FINANCING RECEIVED BY
SBIC PORTFOLIO COMPANIES
(Dollar Amounts in 000's)

	Total Amount of SBIC Financing	Percent of Total SBIC Financing
Debt Only	$ 24,617	8%
Equity Only	$ 46,620	15%
Debt & Equity	$241,434	77%
TOTAL	$312,671	100%

NASBIC Survey supports conclusions of other authorities.

— A Massachusetts Institute of Technology study of 5.6 million firms concluded that two-thirds of the net new jobs created in the economy between 1969 and 1976 were created by small, growth-oriented firms.

— An analysis of Federal Trade Commission data concludes the Fortune 1,000 created no net new jobs between 1969 and 1976.

SUMMARY

SBICs have had a dramatic impact on the U.S. economy. Companies financed by SBICs have experienced greater employment and government revenue growth rates than other small companies that have not received SBIC funds. SBICs are important to the nation's economic strength. They have played an extremely important role in generating revenues, profits, taxes and jobs in small companies.

Small businesses comprise 97% of all businesses in the United States. They are the backbone of its economy. The success of small businesses have been greatly enhanced by SBICs. Therefore, continued and augmented support of the SBIC program will produce substantial economic benefits to the economy as a whole.

The depth and breadth of the results of SBIC investments can barely be scratched by a short summary and can only be dented by even so thorough a study as NASBIC has conducted, but the summary conclusion is inescapable — SBICs provide the nation a service which benefits it as no other group can, by providing jobs and tax revenue and economic growth. That is the function of the SBIC program and that is what it has achieved.

Representative LONG. Thank you, Mr. Rider. Mr. Heizer.

STATEMENT OF E. F. HEIZER, JR., CHIEF EXECUTIVE OFFICER, HEIZER CORP., CHICAGO, ILL.

Mr. HEIZER. Mr. Chairman, having read the other gentlemen's prepared statements this morning—that's one reason I was late—I thought rather than work off the remarks I had prepared, not knowing what they were going to say, I would maybe try to take a little different approach.

Representative LONG. We will make your prepared statement a part of the record, and then you may proceed and talk in whatever manner you like.

Mr. HEIZER. Can I assume the prepared statement I gave you is part of the record?

Representative LONG. You can.

Mr. HEIZER. And then approach this just a little differently.

Representative LONG. It will be made part of the record.

Mr. HEIZER. Thank you.

The first point I would like to make is that the long-term infrastructure, as I call it, for the movement of capital to the small and developing companies has been deteriorating for many, many years in this country, and it is something that doesn't get enough attention.

Another way to put the same statement is we have been concentrating our financial institutions for many years, and with the concentration and as the organizations get larger, they naturally like to work with larger companies as a matter of the normal conduct of their business.

The effects of this long-term decline in the availability of capital and, if you will, institutions through which it could move, really reached its depths, I would say, in 1974 and 1975. I think the Congress began to pay some attention at that point in our history because it was becoming so obvious that the new business formation process was slowing down and had been slowing down for many years, that our productivity was decreasing, et cetera, et cetera.

Now it's part of the record, thanks to many studies done here in Washington—part of the record that is important as small business is and developing businesses are to the well-being of our country.

At any rate, as a result of that, Congress did decrease the capital gains tax, and the response of the venture capital community was tremendous, really, in percentage terms, to where we were by the mid-1970's.

And accompanying the changes in capital gains taxes was recognition by the Securities and Exchange Commission that deserves a lot of compliments from all of us for the fine work they have done in the last 5 or 6 years in clearing up a lot of redtape. The SEC has probably, in my opinion, made more progress than any agency in Washington in terms of getting rid of a lot of unnecessary things that were a real problem to our industry, and we couldn't afford to pay the costs of them, and if we had to spend our time on them, we didn't have the time to run our business.

Also, the ERISA rules have been somewhat clarified, although that is still muddy water, but the minute those rules were clarified so that money could come into our industry, quite a flood of ERISA-type money came in. So Congress should recognize that just the few things you've done have been extremely helpful and have caused quite a pickup in our industry.

The other point I want to make, though, is that despite this pickup, the amount of money available for this process of founding new companies and for supplying the capital to the good ones that want to expand is severely limited—remember, it's the good ones expanding rapidly that typically are the ones that do the most in the technological fields and the most in terms of exports.

There are many ways to put it. I can cause some irritation here in Washington by pointing out that Amtrak over the years has been getting more money per year than our whole industry. And another way to put it is our whole industry couldn't save Chrysler, and the Government in effect put more money into saving Chrysler than they have in helping our industry help the whole country.

So no matter what you hear about the amounts of money or too much money chasing too few deals and so forth, don't believe it. People say that just working from a very provincial-type perspective and they're not looking at the total picture at all.

I was very pleased last week. We had a meeting of the board of directors of the National Venture Capital Association, and we had asked Mr. Stan Pratt, who runs Capital Publishing in Boston, to put together as best he could all of the recent numbers in our industry. And a lot of people, including myself, were of the impression that maybe money was coming into the industry faster than it was being productively put to work. I was quite surprised to find out that more money was invested in small business by our industry in 1981 than was raised. And I think that's a very important fact. And I think it backs up what I'm trying to say, that there is not too much money chasing too few deals. The more money we can get, the better; and the total amount of money, the $1 or $2 billion a year, compared to the size of our economy, is just nothing at all.

So how do we get more money? Well, first of all, we don't need any more Government agencies, and we don't need to take the taxpayers' dollars to do it. We need some incentives.

First of all, I'd like to suggest that Congress seriously consider having no capital gains tax on any investment that goes directly into U.S. industry. Make a differentiation, in other words, between the 20-percent capital gains tax that applies to people buying and selling stocks on the New York Stock Exchange, and the person who ties his money up from some years where the money goes into the industry, into employment, into productive equipment, and we'll really build the country.

I think that is a fairly equitable difference, and I'd like to point out if the role is set up that way, there can't possibly be a negative impact on the budget. Because if the only people who are going to get this no capital gains tax are the ones who are putting money in today, then by the time they have a capital gain—and this can be proven mathematically—the net new employment that must be created before you have a capital gain, the corporate earnings, corporate taxes, individual taxes, and everything, far exceed any capital gains tax issues. We put figures together on actual companies for Stewart Eizenstat and President Carter, and Stewart Eizenstat was astounded at the time to see that it was mathematically impossible to have a negative budget impact by having no capital gains on these new investments.

I would like to add, since some people suspect that this is something Heizer Corp. wants for itself, under my proposal it wouldn't benefit me a bit personally on anything I've done through my career; it wouldn't benefit my company. It would only apply to new investments, and it might cause us to spend more time on new investments and less on other things, which might be good.

Second—and this particularly applies to technological developments, the type of thing Mr. Rider was talking about and that we have been involved in for some years—over the years the cost of technological startups has become greater and greater. And even if we have strong capital gains motivations down the road—and those are very important and vital—one of the problems we face is that investors say:

> Well, I'm putting the money up today. What if there are losses? What if there is this kind of problem or that? And even if it is very successful down the road, if I invest in oil and gas, I get to write off my investment, or if I go into historic rehabilitation—

that's a big new thing in Chicago—

> I get all these writeoffs.

So irrespective of what the long-term pluses or minuses may be, people get fascinated with tax deductions.

Now, our industry has tried to use partnership arrangements for tax losses and all kinds of interesting things that lawyers and accountants dream up. I'd like to propose something very simple, that any company—and the people that would be most interested in my suggestion are new companies, and particularly technological companies—that is incurring losses in building a business can take a choice of keeping those losses and using them as tax loss carryforwards, or they could pass them through the journals and just forget about all the complicated rules of partnership laws and other provisions and just let the company's auditor audit the firm just as they do today, and use form 1099 and report on there, if the company decides to distribute those losses, how many dollars go to each person. If they distribute them, they can't carry them forward.

So it's a timing issue, but I'll guarantee that that in many of the companies we finance, this, combined with no capital gains tax, would be a tremendous incentive to bring money into our industry.

Representative LONG. You can basically do that, can't you, under—what is it?

Mr. HEIZER. Subchapter S is so restricted in terms of——

Representative LONG. The number of people and——

Mr. HEIZER. And it's so complicated, and these partnerships are very complicated, and it could be so simple. I'd like to point out we have spent most of our career creating companies competing with IBM. We think IBM is one of the finest companies in the world, and we testified for them in the antitrust proceedings, despite competing with them.

That's the background. But I'd like to point out how unfair the current tax law is, because if we get a number of investors together to produce a product competing with IBM, none of our investors get any tax writeoff at all, and years down the road they get a capital gains tax, and Congress keeps changing that around. IBM gets a Government subsidy of 50 percent on every dollar they spend on a new product. So if you take the time value of money, IBM has a tremendous advantage over us in this process.

And I wish the Government would spend more time and attention to that kind of thing than trying to break up one of our finest companies—in other words, accentuate the positive and put in incentives, rather than fool around with one of our best companies.

Then I'd also like to point out that it is not only important to attract capital into our industry with incentives, but we have to have the people that are going to manage these companies, and they have to be very good people, which means typically they are with big companies and they have to be enticed away from those big companies. The best tool you have to do this is stock options, and stock options that don't put these people in ridiculous positions in terms of their cash flow or their ability to hold their stock.

This setback in the law that just took place not only amazed me, but infuriated me that Congress and our industry have worked so hard over the last 5 years to reinstitute effective stock options and then have nothing in the Senate bill itself and nothing was in the Senate Finance Committee hearings on the subject. I came down to Washington to serve on a committee to review the tax laws just before the new session, only to learn that some staff people had out of the blue, in the middle of the night, changed the tax treatment of stock options with no hearings and no notice—I don't think that's a very good way to conduct their business. There was very little money involved. It won't raise any money at all for the Government. You won't even notice it. But I'll tell you it's going to do serious damage to this process of new capital formation.

I'd like to make two points, really. I think we ought to readdress that issue, first, in the law; and No. 2, I think it is essential that Congress agree on a proper set of rules for stock options and not keep changing them all the time, because the change is terribly disturbing.

At any rate, those are some sort of off-the-cuff remarks.

[The prepared statement of Mr. Heizer follows:]

PREPARED STATEMENT OF E. F. HEIZER, JR.

My name is E. F. Heizer, Jr.

Thank you for asking me to testify on the contribution venture capitalists have made to stimulating new, high-technology companies and on what Congress can do to encourage the further development of these activities which are so vital to our economic growth.

To add perspective and I hope credibility to what I plan to say, let me give you a brief background of my involvement in the venture capital industry.

- Full time venture capitalist for over 20 years.
- Currently Chief Executive Officer of Heizer Corporation, which is the largest publicly held Business Development Company in the U.S. with assets over $200 million.
- Most of my career and over 80% of Heizer Corporation's assets have been devoted to high-technology companies.
- First President and Chairman of National Venture Capital Association and currently a member of its Board of Directors.
- Served on the Board of Directors of the National Association of Small Business Investment Companies.
- Currently on the Board of Directors of the American Business Conference.
- Served on a number of governmental advisory committees and was Chairman of the Task Force on Capital Formation for the White House Conference on Small Business.

The vital contribution of small business to the U.S. economy has been well documented. Small businesses employ most of our labor force and have consistently generated over 50% of our net new employment and a majority of our technologically based new products.

The rapidly growing, technologically based companies are an especially important segment of the small business community in terms of both net new employment in the U.S. and exports. The venture capital community plays a vital role in providing both equity capital and management support to these rapidly growing, technologically based businesses.

Congress should do everything possible to encourage the growth of the venture capital industry.

- There are less than 500 professionally managed venture capital firms in the U.S. even including several hundred very small SBIC's.
- Although the amount of capital managed by these firms has increased significantly over the last five years due to pent up demand for funds and the restoration of capital gains taxes, the total flow of capital is still only about one billion per year.
- One billion a year to finance the most important segment of the U.S. economy for future growth is not anywhere near enough. For perspective, this approximates the annual budget for Amtrack and would not have been enough to save Chrysler.

Congress can play a vital role in the future development of the venture capital industry.

- No new administrative agencies are needed and no taxpayers' dollars are needed.

- All that is needed is the proper long-term incentives free from governmental gyrations and red tape.

- The U.S. economy was not built by big government or big business. It was built by small companies growing into big companies.

- We must attract competent managers away from the security of big business and big government into the long hours and high risks of new and rapidly growing companies and into the venture capital firms themselves to revitalize the U.S. economy.

  - Congress is to be applauded for reinstituting a capital gains tax incentive and for enacting Incentive Stock Options plans. These were a real shot in the arm to the business development community and created an immediate and positive response.

  - However, Congress was ill-advised in unnecessarily complicating the scene by restricting the size of Incentive Stock Option grants and turning capital gains into a tax preference item under the 1982 Act.

  - As a country we have to stop begrudging the gains of those who contribute the most to our economy or we will not pull out of our present economic malaise.

- We must attract a much larger amount of long-term capital away from money market funds and the bond market and the trading markets to revitalize the U.S. economy.

  - This will be difficult at best.

  - A meaningful long-term capital gains incentive is the most effective and fairest means of creating risk capital.

- Serious consideration should be given to no capital gains tax on capital invested directly into the expansion of businesses as contrasted to, say, the current 20% capital gains tax on investment in the outstanding securities of existing enterprises. This suggestion would have no negative impact on the current budget and by definition would create a long-term positive impact on the budget.

- Serious consideration should also be given to letting early stage companies distribute their losses to their shareholders with the complications and restrictions of being a Subchapter S Corporation or partnership. Although this suggestion would have a short-term negative impact on the budget, it would have a positive long-term effect and would put new companies on a tax parity with established companies which currently write off their new business development expenditures immediately against their taxable income.

- The SEC's significant progress in simplifying securities regulations should be applauded by Congress and emulated by other federal and state agencies of all kinds.

In conclusion, the continued concentration of U.S. financial institutions and industry are alarming. The initiatives outlined above are a minimum required if the U.S. is going to expeditiously build a new infrastructure to accelerate the commercialization of our technology and the rejuvenation of our industrial infrastructure.

Thank you, and I will be more than happy to answer any questions you may have.

Representative LONG. Thank you, Mr. Heizer, and we do appreciate your comments. Mr. Hagopian.

STATEMENT OF B. KIPLING HAGOPIAN, GENERAL PARTNER, BRENTWOOD ASSOCIATES, LOS ANGELES, CALIF.

Mr. HAGOPIAN. Thank you, Mr. Chairman. I'm going to do the same thing that Ned did, because I think the speakers who have already testified here today have covered a lot of the points in my statement and, as a matter of fact, you covered a lot of the points that I covered in my statement. You could have been giving my statement.

I would like to make my prepared statement a part of the permanent record, including the appendixes.

Representative LONG. It shall be.

Mr. HAGOPIAN. The appendixes are four—one of which is a complete memorandum on the incentive stock option law and the things that are wrong with it. I am embarrassed to say I didn't know the tax treatment of incentive stock options had just been changed. The memorandum appended to my prepared statement contains proposals that deal with other deficiencies in the incentive stock option law passed by Congress in 1981.

Representative LONG. You will have to change your priorities now, if the degree to which Mr. Heizer was upset is any indication of the seriousness of the problem.

Mr. HAGOPIAN. This is an example, as Ned said, of how our industry has been dealing with a moving target; not just in the tax area but in the regulatory area as well. I have covered that in my prepared statement.

What I think I'd like to do is read from the executive summary of my prepared statement, a few highlights of the statement, and finish by reading verbatim the proposals that I would make to expand venture capital formation.

Representative LONG. We'd like to have that.

Mr. HAGOPIAN. One thing I'd like to start off with, though, is to refer you to exhibit 1 and exhibit 2 of my prepared statement. Exhibit 1 is a graphic depiction of what I consider to be the causes and effects of innovation. And I really think the main issue here is innovation, not venture capital.

Venture capital is just a part of the process. As I have tried to indicate there, it all starts with incentives. Incentives are required for both entrepreneurs and venture capital. As you will note on the picture, venture capital has historically had to break its way through government regulations in order to get to the young technology companies who are able to provide the major impetus to innovation in this country. Of course, innovation is what leads to economic growth, productivity, and a much higher quality of life. Economic growth and rising productivity, I think it's well documented, result in increased tax revenue, and therefore, reduced budget deficits, which all of us are hopeful of achieving, and a greater increase in jobs, a rise in our standard of living, more stable prices, and greater international competitiveness.

Exhibit 2 is a table that perhaps you've seen. I think it is also contained in the General Accounting Office report to Senator Bentsen on the venture capital industry. It documents the flow of funds into venture capital pools and the investment by those pools into small companies. And it is a rather interesting historical representation because it shows how little capital flowed into venture capital pools during the 1970's and as a result how little money went into small companies during that period.

And then there's a very significant event that occurred in 1978; namely, the capital gains tax decrease. After that event there was an enormous increase in the flow of funds into venture capital pools, and as a result, into small companies. And as has been said here today, $1.4 billion went into venture capital pools in 1981, whereas in 1976 and 1977 $300 million and $400 million, respectively, went into such pools.

And as Ned indicated—excuse me, $1.4 billion was the amount of money disbursed to small companies; $1.3 billion is what went into venture capital firms. In 1982 we're ahead of that pace; something like $900 million has already flowed into venture capital pools in the first 6 months of this year.

The key points that I'd like to make which basically summarize the testimony of others here today are as follows: It seems clear that technological innovation is the most significant contributor to economic growth, to productivity, and to our quality of life; that young technology companies represent one of the most important contributors to technological innovation. I happen to think they are the most important contributor to technological innovation, not just insofar as they themselves are innovative, but in the extent to which they stimulate large companies to create new ideas. There are a large number of companies in this country—IBM is a classic example—that don't bring out new products except under the pressure of the small innovative companies. And I think that's a very key point that is often kind of lost in discussion of the importance of the small technology companies.

A third point—and I think this is irrefutable—is that venture capital is the lifeblood of young technology companies.

With respect to the availability of venture capital, first we should note that the new technology company formation process requires two things: One is entrepreneurs and second is venture capital.

Entrepreneurship—I think it's intuitively obvious—is stimulated by economic awards. Entrepreneurs are attracted by the lure of riches; or I should say, they are attracted by a lot of things, one of which is the lure of riches.

Second, venture capital formation is maximized by economic rewards and by the absence of regulatory barriers.

As was said here today, there has been a tremendous shortage of venture capital in the 1970's, and in my opinion it was because there were insufficient incentives and too many regulatory obstacles. It's as simple as that. In the last 4 years there has been a substantial increase in the availability of venture capital, and I think the reason is because we increased the incentives and reduced the obstacles. Again, this seems fairly straightforward.

The result of this increase in venture capital is that there has been an unprecedented increase in new company formation. And I'd like to underscore something that Ned Heizer and Don Gevirtz said earlier, that this rise in new company formation, in my view, is the one bright spot in an otherwise absolutely dismal economic picture. The benefits of this increase in new company formation are, of course, not going to show up for some time to come, but I can guarantee you that tremendous benefits are going to accrue to our economy as a result of what's going on right now.

The fact is that there are not too many dollars chasing too few good deals as has been reported in the press. As a matter of fact, we have as high a stream of high-quality proposals coming to us now as we have ever had, even though the industry has seen a doubling of the available venture capital in the last 4 years. In effect I think what we're witnessing is Say's Law, which theorizes that supply will create its own demand. Well, we have a much greater supply of capital; we now have a much greater demand for that capital.

Representative LONG. Mr. Hagopian, how do you relate this in view of what's happening to the economy in general and has now for a number of months? Do all of you find this still continuing, this demand for the venture capital from what you consider viable economic opportunities?

Mr. HAGOPIAN. I can only comment on our experience—I guess I could comment on the experience of some of our colleagues as well, but I think most of us find we are inundated with proposals right now.

Representative LONG. My question is, How do you relate this to the economic situation that exists?

Mr. HAGOPIAN. I don't relate it to the economic situation. I relate it to the fact that the entrepreneurs know there's a lot of venture capital that has gone into venture pools in the last 2 or 3 years, and they think if the money is available they should come out and try to get it. And I think there's also that undaunted optimism, of course, that the country is not going to remain in a recession forever; by the time companies that are started today are ready to introduce products, it will be 1½ to 2 years from now.

Representative LONG. Don't you think it might be, to some degree, the American economic entrepreneurs looking for a new way to go?

Mr. HAGOPIAN. As contrasted with working——

Representative LONG. Compared to what we have been in the past and what we have done and the troubles that we're in at the present time.

Mr. HAGOPIAN. I think most certainly that is the case, but I think they probably have wanted—I think there's a latent entrepreneur in all of us, and all we need to do is create the incentives and it will come out.

Another reason is success tends to breed success. I think a lot of people, for example, in the Silicon Valley area have seen their neighbors—literally their neighbors—or parents of their children's friends go out and get rich starting electronic companies, and they say, "I'd like to do that myself."

Let me switch to some recommendations. By the way, I would like to make sure I commend to everyone on the subcommittee this report which is written to Senator Bentsen entitled, "Government and Industry Cooperation Can Enhance the Venture Capital Process." It was prepared by the GAO, and in my view it's one of the finest presentations on the venture capital industry that I've ever seen.

While modest strides have been made toward creating an environment in which new companies can form and flourish, even more can and should be done to expand and perpetuate the recent burst of entrepreneurial activity. If we accept the premise that new technology company formation is critically dependent upon maximizing incentives to entrepreneurs and expanding the availability of risk capital, then it is clear where attention should be focused. Because venture capital formation depends on maximizing investment returns and minimizing impediments to capital flow, my proposals fall into these two categories.

The greatest stimulus to the formation of innovative companies would come through further increases in economic incentives to both entrepreneurs and the sources of venture capital. To this end I propose that:

One, the capital gains tax be substantially reduced or eliminated; and

Two, incentive stock option regulations be revised to increase their usefulness as an incentive to stimulate entrepreneurship.

The specific areas in which I think they should be revised are documented in the appendix here, but I'll add one more, which is the taxation issue referred to earlier.

I believe the arguments in favor of a substantial reduction or elimination of the capital gains tax are extremely compelling:

One, because they are the largest users of equity capital, the primary beneficiaries of such an action would be the high-growth companies which are the greatest contributors to employment and productivity growth. Mature, slow-growth companies are generally able to finance operations from internally generated cash flow.

Two, the capital gains tax, in combination with the corporate income tax, represents an excessive tax on capital. Presently the U.S. taxes the earnings from capital at a rate of 46 percent at the corporate level. In addition, corporate after-tax earnings which are distributed to shareholders in the form of dividends are taxed again at rates as high as 50 percent. Earnings retained in the business, which are reflected in an increase in the value of a company's stock, are taxed at the 20-percent capital gains rate upon sale of the stock. Both the tax on dividends and the capital gains tax represent double taxation of income from capital. Such taxes clearly discourage risktaking.

Three, foregoing the tax on capital gains is a good investment decision. Here I'm going to put this in the terms of a venture capitalist. The evidence suggests there is a high degree of likelihood that the revenue lost from a reduction or elimination of the capital gains tax would be more than offset by an increase in corporate and personal tax revenues caused by the stimulative effects such a tax cut would have on the economy.

It should be noted that capital gains tax revenues, which aggregated $8 billion in 1979, only represents about 1¼ percent of total Federal tax revenue—1¼ percent. Unfortunately, this tax, which is virtually insignificant in terms of its impact on revenues, is highly significant in its impact on risk investment decisions. The Congress is, therefore, provided with an opportunity to risk a very small amount of current tax revenue for the prospect of producing a much larger stream of income in the future. Moreover, if the conclusions of the studies cited herein are valid, then the return on this investment would be enhanced by a substantial increase in jobs and a rise in productivity.

While such positive results cannot be guaranteed—although Ned apparently feels they are—I believe the probability of success is more than commensurate with the risk of loss. Moreover, the cost of being wrong—that is the loss of roughly 1 percent of tax revenue—is very, very low.

I would urge you, therefore, to take this small risk and try such a course, perhaps on a phased basis, reducing the tax rate by 5 percentage points in each of the next 4 years.

Incentive stock options. The passage of the incentive stock option law was another major step forward in stimulating the formation and growth of high-technology companies. Unfortunately, the incentive stock option law as passed contains provisions which limit its value as a motivational tool. Appended to this testimony is a memorandum detailing the problems with the current incentive stock option law and setting forth proposed revisions which would make the law more effective as an incentive to entrepreneurship.

Regulatory barriers to capital formation seem to spring forth like leaks in the dike; as soon as one is plugged another one appears. Presently there are a number of regulatory provisions which are of varying degrees of concern to our industry. I am confident, however, that even if all of these current impediments are cleared, new ones will soon be created. Unfortunately, direct interaction with regulatory authorities, many of whom consider businessmen their natural enemy, is not always productive.

Representative LONG. You are not very optimistic about doing anything about that one, are you?

Mr. HAGOPIAN. Well, I have a proposal that might help. On occasion, only the more objective hand of Congress or the White House can arbitrate these conflicts between businessmen and the regulators.

My proposal is that a permanent Government-venture capital industry forum be established as a means of fostering an understanding of the industry's problems among leaders in the legislative and executive branches of the Government, and dealing with regulatory obstacles as they emerge.

As it turns out, the Congress is much more reasonable and logical than a lot of people in the private sector give them credit for. I can't always say that about the regulatory auhorities. We found, when we were bogged down in discussions with members of Government agencies who were proposing regulations that would impede the flow of capital, when we explained this to Congressmen, oftentimes they were appalled; they had no idea this sort of thing was going on. And on those occasions where we have been able to get them involved, it has made a tremendous amount of impact on the agencies themselves.

So I would suggest that the forum be comprised of members of the venture capital industry, to include the SBIC segment, and the Congress, and if possible a representative from the White House.

We also have found that the White House which theoretically controls these regulators, oftentimes has no idea what's going on down in the bowels of the agencies where these regulations are made.

Depending upon the specific regulatory issues being addressed, one or more persons from the appropriate regulatory agency or agencies could also be included on an ad hoc basis.

Alternatively, we will just be coming to you every year telling you about this regulation or that regulation, because as we knock one down another one springs up. As a result, it seems to me if we could have a periodic discussion with Members of the Congress and the White House staff to explain the problems as they emerge, we could make a lot more progress.

In summary, I would reiterate that innovation is essential if we are to achieve our full employment goals amidst an environment of stable prices and a rising standard of living. Both commonsense and a large body of evidence suggest that an increase in the rate of formation of new technology companies should be a cornerstone of economic policies designed to stimulate innovation and job creation. The formation of new technology companies is fostered by increases in economic incentives for entrepreneurship and by the expansion of the availability of venture capital.

Venture capital is in turn stimulated by maximizing incentives and minimizing regulatory impediments. I see my secretary left out a very important phrase here.

The best way to maximize economic incentives to entrepreneurs and to stimulate venture capital formation is to substantially reduce or eliminate the capital gains tax. Additionally, improvements in the recently passed incentive stock option law are needed to make the reduced capital gains tax of more benefit to entrepreneurs. Clearing the path of regulatory impediments is a dynamic problem requiring an ongoing dialog between industry leaders and key Members of the Congress and the White House staff.

In closing, I would like to make an observation and extend an invitation. First, I would observe that from my perspective, few, if any, Members of Congress have a true appreciation for the incredible advances being made in the technology companies of this country, nor the implications of these advances for our economy. In the interest of broadening the perspective of at least some Members of Congress, I would like to extend an invitation to the members of the Joint Economic Committee to form a factfinding delegation to visit the San Francisco peninsula area known as the Silicon Valley, where I will arrange visits to a representative sample of high-technology companies. I urge you to consider accepting this invitation. I know you would find it fascinating and enlightening and truly valuable in fulfilling your roles as members of this committee.

I am also prepared to arrange this visit to the Silicon Valley during what I understand is the height of the season for factfinding missons, which would probably be sometime in the winter.

Thank you.

[The prepared statement of Mr. Hagopian, together with the appended material referred to, follows:]

PREPARED STATEMENT OF B. KIPLING HAGOPIAN

I. INTRODUCTION

My name is Kip Hagopian. I am a founder and General Partner of Brentwood Associates, which is one of the largest venture capital firms in the United States. I also serve on the Board of Directors of the National Venture Capital Association.

I appreciate the opportunity to testify on a subject of such vital importance to our economy. My presentation is intended first, to deepen your understanding for the crucial role venture capital investment plays in our economy; and second, to offer practical and viable proposals to expand the availability of venture capital.

II. THE ROLE OF VENTURE CAPITAL IN THE U.S. ECONOMY

The total amount of venture capital available for equity investment in new and emerging technology companies is relatively small, presently standing at about $6.5 billion. The evidence suggests strongly, however, that the positive impact of venture capital investment on our economy, is extremely large.

My view of the crucial role venture capital plays in our economy is based on three fundamental premises: (1) technological innovation is the most significant contributor to economic growth, productivity, and the quality of life; (2) new technology companies represent one of the most important contributors to technological innovation; and (3) venture capital is the life blood of new and rapidly growing technology companies.

The Importance of Technological Innovation

The enormous contribution technological innovation makes to economic growth and productivity is documented by extensive and credible research. In a study done at MIT, for example, it was found that as much as 80% of the growth in U.S. GNP in the first half-century was due to technical change; several other studies, while giving more credit to other factors, agree that innovation has been the largest determinant of growth in GNP. The impact of technological innovation on productivity was documented in a recent study by the Brookings Institution in which it was found that more than one-half of the rise in U.S. productivity between 1948 and 1969 was the direct result of innovation.

The Contribution of Young Technology Companies to Innovation and Job Creation.

While significant economic benefits are produced by other sectors of the economy as well, the evidence strongly suggests that new and emerging technology companies represent the greatest impetus to innovation and employment growth. According to a recent National Science Foundation study, one out of every four of the most significant industrial product and process innovations since World War II was developed by firms with less than 100 employees, while one-half of such innovations were accounted for by companies with less than 1,000 employees.

In the area of job creation the record of small companies is even more impressive. A Massachusetts Institute of Technology study has indicated that from 1969 to 1976 businesses with under 500 employees generated 87% of the private sector employment growth. This seems reason enough to implement policies designed to stimulate new company formation.

The Essential Role of Venture Capital in Young Technology Companies

Innovative new companies are formed through the marriage of creative entrepreneurs and venture capital. Once formed, the high growth rates of these companies can only be sustained by continuous infusions of risk capital. The greater the amount of capital available, the more new companies will be formed and the greater the number of industry entry-barriers that will be brought within reach of entrepreneurs.

As evidenced by the literally countless numbers of successful companies financed by venture capitalists, the combination of the American entrepreneur with venture capital is a highly potent formula. In the August 1982 General Accounting Office Report to this Committee on Venture Capital, 72 companies backed by venture capitalists during the 1970 to 1979 period were studied. Based on this study, the GAO projected that by 1989 these 72 firms would employ 500,000 to 2,500,000 people and would be directly or indirectly responsible for between $11 billion and $31 billion in annual personal and corporate tax revenues. Amazingly, total investment in these 72 companies through 1979 was only $209 million. While this data is admittedly anecdotal it is highly impressive nonetheless.

III. AVAILABILITY OF VENTURE CAPITAL

There are two prerequisites for the formation of new technology companies: first, there must be sufficient economic rewards available to entrepreneurs; and second, there must be sufficient venture capital available to start and to sustain the growth of such companies. Venture capital formation, in turn, is dependent upon two factors: (1) the existence of sufficient economic rewards to compensate the venture capital investor for his risk, and (2) the absence of obstacles which would prevent the flow of capital into venture pools and young companies.

Entrepreneurial spirit is the heart of our free enterprise system and has always existed in abundance in this country. Sadly, this spirit was severely dampened for almost the entire decade of the 1970's. During this period, economic rewards for risk-taking were reduced substantially, as the maximum tax rate on capital gains was raised from 25% to 49%. Also, during this period, overly restrictive regulations significantly reduced the flow of funds into venture capital intermediaries, while simultaneously impeding direct investment in young companies. As a result of these factors, the availability of risk capital declined dramatically. Few new companies were formed, and the high potential growth rates of existing technology companies were constrained by a lack of funds. A number of promising companies were forced to either sell out to large competitors or to sell off licenses to their technology to major Japanese and European companies.

Fortunately, for our industry and for the economy, the Congress and certain regulatory authorities recognized the severity of the problem and took action to correct it.

Economic Incentives Increased

By far the most dramatic impact on venture capital formation, dwarfing all other legislative and regulatory changes combined, has been the 1978 and 1981 reductions in the capital gains tax from a high of 49.1% to its current maximum level of 20%. Also, in 1981, Congress, through the enactment of the Incentive Stock Option Law reinstated the employee stock option as an economic incentive for entrepreneurship. These important changes in the tax law substantially enhanced incentives to both entrepreneurs and venture capital investors.

Regulatory Obstacles Reduced

In the late 1970's, after literally years of debate and negotiation, the venture capital industry, with considerable help from the Congress and some farsighted agency staff members, was successful in mitigating a number of regulatory barriers to risk capital formation. This has had a very positive effect on the flow of funds into young companies and venture capital intermediaries.

Major Increase in Venture Capital and New Company Formation

Substantially as a result of the increase in incentives, and to a lesser extent to the reduction of regulatory obstacles, the available pool of venture capital, which had remained static at about $2.5 to $3.0 billion from 1969 to 1977, has more than doubled in the last four years. During this same period, the tremendous growth in capital availability, together with a substantial increase in economic rewards for entrepreneurs, has resulted in an unprecedented rise in new technology company formation and corporate expansion financings.

In my opinion, the extraordinary increase in the flow of funds to young technology companies, which has gone largely unnoticed in this period of economic malaise, is one of the brightest spots in an otherwise dismal economic picture. I believe that the long term benefits that will accrue to our economy as a result of this activity will be manifold and dramatic.

IV. PROPOSALS TO STIMULATE NEW COMPANY FORMATION

While modest strides have been made toward creating an environment in which new companies can form and flourish, even more can and should be done to expand and perpetuate the recent burst of entrepreneurial activity. If we accept the premise that new technology company formation is critically dependent upon maximizing incentives to entrepreneurs and expanding the availability of risk capital, then it is clear where attention should be focused. Because venture capital formation depends on maximizing investment returns and minimizing impediments to capital flow, my proposals fall into these two categories.

Incentives to Entrepreneurs and Venture Capital Formation

The greatest stimulus to the formation of innovative companies would come through further increases in economic incentives to both entrepreneurs and the sources of venture capital. To this end, I propose that:

1. The Capital Gains Tax be substantially reduced or eliminated; and
2. Incentive Stock Option regulations be revised to increase their usefullness as an incentive to stimulate entrepreneurship.

Capital Gains Tax. I believe the arguments in favor of a substantial reduction or elimination of the capital gains tax are extremely compelling:

1. Because they are the largest users of equity capital, the primary beneficiaries of such an action would be the high growth companies which are the greatest contributors to employment and productivity growth. Mature, slow growth companies are generally able to finance operations from internally generated cash flow.
2. The capital gains tax in combination with the corporate income tax, represents an excessive tax on capital. Presently, the U.S. taxes the earnings from capital at a rate of 46% at the corporate level. In addition, corporate after-tax earnings which are distributed to shareholders in the form of dividends are taxed again

at rates as high as 50%. Earnings retained in the business which are reflected in an increase in the value of a company's stock, are taxed at the 20% capital gains rate upon sale of the stock. Both the tax on dividends and the capital gains tax represent double taxation of income from capital. Such taxes clearly discourage risk-taking.

3. Foregoing the tax on capital gains is a good investment decision. The evidence suggests there is a high degree of likelihood that the revenue lost from a reduction or elimination of the capital gains tax would be more than offset by an increase in corporate and personal tax revenues caused by the stimulative effects such a tax cut would have on the economy. It should be noted that capital gains tax revenue, which aggregated $8.0 billion in 1979, only represents about 1½% of total Federal tax revenue. Unfortunately, this tax, which is virtually insignificant in terms of its impact on revenues, is highly significant in its impact on risk investment decisions. The Congress is, therefore, provided with an opportunity to risk a very small amount of current tax revenue for the prospect of producing a much larger stream of income in the future. Moreover, if the conclusions of the studies cited herein are valid, then the return on this investment would be enhanced by a substantial increase in jobs and a rise in productivity. While

> such positive results cannot be guaranteed, I believe the probability of success is more than commensurate with the risk of loss. Moreover, the cost of being wrong -- that is the loss of roughly 1% of tax revenue -- is very, very low.

I would urge you, therefore, to take this small risk and try such a course, perhaps on a phased basis, reducing the tax rate by 5 percentage points in each of the next four years.

Incentive Stock Options. The passage of the Incentive Stock Option law was another major step forward in stimulating the formation and growth of high technology companies. Unfortunately, the Incentive Stock Option law as passed contains provisions which limits it's value as a motivational tool. Appended to this testimony is a memorandum detailing the problems with the current Incentive Stock Options law and setting forth proposed revisions which would make the law more effective as an incentive to entrepreneurship.

Reducing Regulatory Impediments to Venture Capital Formation. Regulatory barriers to capital formation seem to spring forth like leaks in the dike; as soon as one is plugged another one appears. Presently, there are a number of regulatory provisions which are of varying degrees of concern to our industry. I am confident, however, that even if all of these current impediments are cleared new ones will soon be created. Unfortunately, direct interchange with regulatory authorities, many of whom consider businessmen their natural enemy, is not always productive. On occasion only the more objective hand of Congress or the White House can arbitrate these conflicts.

Government-Industry Forum. Therefore, I propose that a permanent government-venture capital industry forum be established as a means of fostering an understanding of the industry's problems among leaders in the legislative and executive branches of the government, and dealing with regulatory obstacles as they emerge.

I would suggest that the forum be comprised of members of the venture capital industry and the Congress, and if possible, a representative from the White House. Depending upon the specific regulatory issues being addressed, one or more persons from the appropriate regulatory agency or agencies could also be included on an ad hoc basis.

V. SUMMARY

In summary, I would reiterate that innovation is essential if we are to achieve our full employment goals amidst an environment of stable prices and a rising standard of living. Both common sense and a large body of evidence suggest that an increase in the rate of formation of new technology companies should be a cornerstone of economic policies designed to stimulate innovation and job creation. The formation of new technology companies is fostered by increases in economic incentives for entrepreneurship and by the expansion of the availability of venture capital.

incentives + minimizing

Venture capital is in turn stimulated by maximizing regulatory impediments. The best way to maximize economic incentives to entrepreneurs and to stimulate venture capital formation is to substantially reduce or eliminate the capital gains tax. Additionally, improvements to the recently passed Incentive Stock Option law are needed to make the reduced capital gains tax of more benefit to entrepreneurs. Clearing the path of regulatory impediments is a dynamic problem requiring an ongoing dialogue between industry leaders and key members of the Congress and the White House staff.

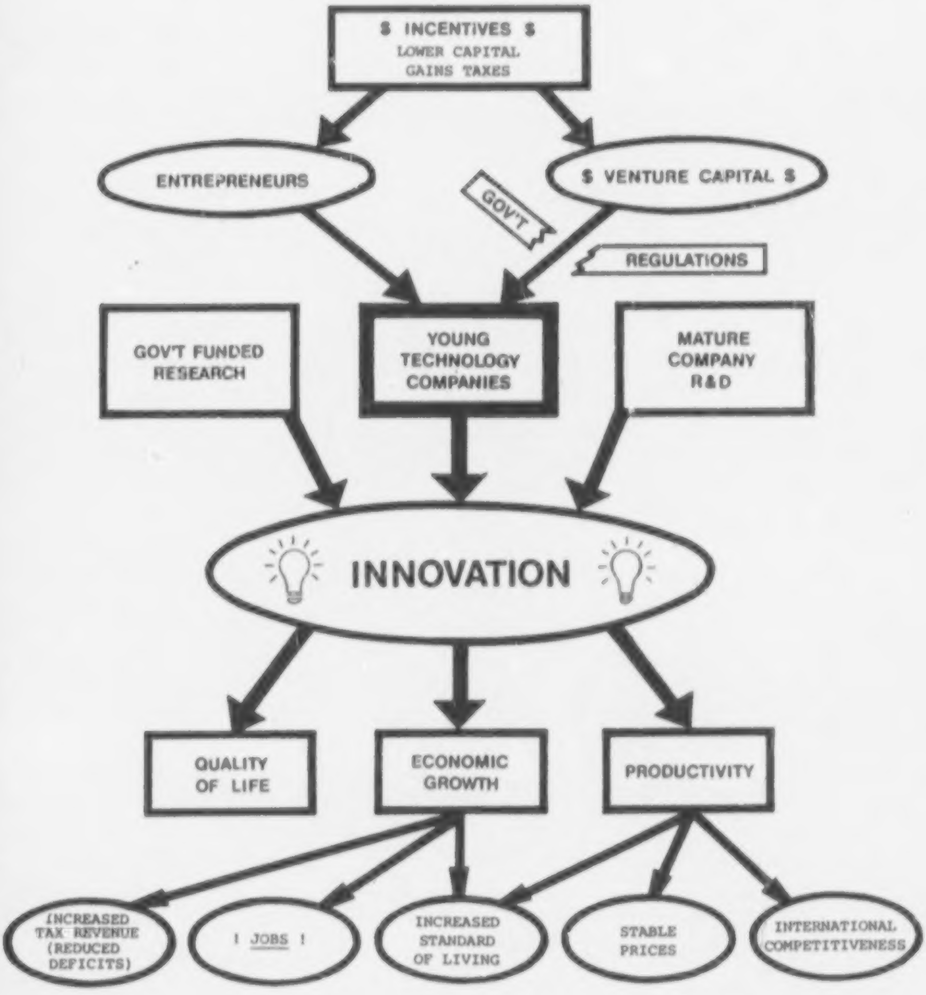
In closing, I would like to make an observation and extend an invitation. First, I would observe that from my perspective, few if any, members of Congress have a true appreciation for the incredible advances being made in the technology companies of this country, nor the implications of these advances for our economy. In the interest of broadening the perspective of at least some members of Congress, I would like to extend an invitation to the members of the Joint Economic Committee to form a fact-finding delegation to visit the San Francisco peninsula area known as the "Silicon Valley," where I will arrange visits to a representative sample of high-technology companies. I urge you to consider accepting this invitation. I know you would find it fascinating and enlightening and truly valuable in fulfilling your roles as members of this Committee.

Author's Postscripts:

1. Appended to this Testimony are the following documents which the author believes will be of significant value to the Committee in broadening its understanding of the Venture Capital industry and its importance to innovation and job creation in the U.S. economy.
   - Advancing Technological Innovation Through Tax Policy by Dr. Edwin V. W. Zschau, 1981, past Electronics and present candidate for the Congress.
   - The Report of the Task Force on Innovation and Entrepreneurship, presented to President Ronald Reagan November 5, 1980.
   - Summary of a Presentation "Symposium on Financing More Innovation at Less Risk" in Luxembourg, December 16, 1981 by Stanley E. Pratt, President Capital Publishing Corporation (Publisher of the most authoritative Journal on Venture Capital).
2. I would also strongly recommend to the Committee the August 12, 1982 Report to Senator Lloyd Bentsen, Joint Economic Committee, entitled Government-Industry Cooperation Can Enhance the Venture Capital Process. I believe this report is one of the most comprehensive and insightful works ever done on the venture capital industry.

Exhibit 1

INNOVATION–CAUSES AND EFFECTS


$ INCENTIVES $
LOWER CAPITAL GAINS TAXES
ENTREPRENEURS
$ VENTURE CAPITAL $
GOV'T
REGULATIONS
GOV'T FUNDED RESEARCH
YOUNG TECHNOLOGY COMPANIES
MATURE COMPANY R&D
INNOVATION
QUALITY OF LIFE
ECONOMIC GROWTH
PRODUCTIVITY
INCREASED TAX REVENUE (REDUCED DEFICITS)
! JOBS !
INCREASED STANDARD OF LIVING
STABLE PRICES
INTERNATIONAL COMPETITIVENESS

Testimony to the Joint Economic Committee, Congress of the United States, by B. Kipling Hagopian, General Partner, Brentwood Associates

EXHIBIT 2

VENTURE CAPITAL INDUSTRY

ESTIMATED FUNDINGS AND DISBURSEMENTS

(Millions of Dollars)

Year	New Private Capital Committed to Venture Capital Firms	Estimated Disbursements to Portfolio Companies	Public Underwritings of Companies with a Net Worth of $5 Million Or Less Number	Amount
1981	$1,300	$1,400 (Est)	(306)	$1,760
1980	900	1,100	(135)	822
1979	319	1,000	(46)	183
1978	570	550	(21)	129
		Capital Gains Tax Decrease		
1977	39	400	(22)	75
1976	50	300	(29)	145
1975	10	250	(4)	16
1974	57	350	(9)	16
1973	56	450	(69)	160
1972	62	425	(409)	896
1971	95	410	(248)	551
1970	97	350	(198)	375
		Capital Gains Tax Increase		
1969	171	450	(698)	1,367

Total Capital Committed to the Organized Venture Capital Industry
Estimate at December 31, 1981

Independent Private Venture Capital Firms	$2.6 billion
Small Business Investment Companies	1.6 billion
Corporate Subsidiaries (Financial and Non-Financial)	1.6 billion
Total	$5.8 billion

This pool remained static from 1969 through 1977 at some $2.5 to $3.0 billion (with new fundings more or less equal to withdrawals).

SOURCE: Venture Economics Division
Capital Publishing Corporation

EXECUTIVE SUMMARY
Critique of IRC Section 422A(b)(7) and (8) (Sequential Exercise Rule and Ceiling Limitation Relating to Incentive Stock Options)

Section 422A of the Internal Revenue Code of 1954 (the "Code"), which provides special tax treatment for Incentive Stock Options ("ISOs"), was enacted for the purpose of encouraging employees to acquire an ownership interest in their employer's business. Section 422A contains numerous requirements for ISO qualification which effectively prevent abuses and at the same time are consistent with the basic legislative purpose. However, Section 422A contains two significant limitations - the Sequential Exercise Rule and the Ceiling Limitation - which do not effectively focus on real abuses but prevent ISOs from being used to their full advantage by corporations and their employees.

Both the Sequential Exercise Rule and the Ceiling Limitation have the primary purpose and effect of limiting the amount of tax-favored incentive which may be given to a key employee. However, in virtually every case the grant and exercise of an ISO will produce more net tax revenue for the Treasury than the use by the employer corporation of a nonstatutory incentive compensation device. Therefore, in the interest of the Treasury, as well as corporations and their employees, the Sequential Exercise Rule and the Ceiling Limitation should be repealed in their entirety.

If complete repeal of the two rules is not possible, they should each be amended to focus more sharply on the problems they were intended to address. The Ceiling Limitation is presently too low, particularly in the first year of employment; it should be amended to provide for a significantly higher amount and to provide for an unused limit carryback from the three immediately succeeding years. The Sequential Exercise Rule is presently overbroad, preventing the exercise of ISOs in situations where there is no abuse potential. That rule should be amended in two respects: (1) An optionee should be permitted to exercise, without penalty, a later-granted higher-priced ISO at any time. (2) An ISO should not be treated as "outstanding" for purposes of the rule until it becomes exercisable by its own terms.

MEMORANDUM

TO: Board of Directors
National Association of Venture Capitalists

FROM: Wilson, Sonsini, Goodrich & Rosati

DATE: September 27, 1982

RE: Critique of IRC Section 422A(b)(7) and (8)
(Sequential Exercise Rule and Ceiling Limitation relating to Incentive Stock Options)

The Economic Recovery Tax Act of 1981 ("ERTA") added Section 422A of the Internal Revenue Code of 1954 (the "Code"), which provides for special tax treatment of Incentive Stock Options ("ISOs"). The special tax treatment is intended to encourage employees to acquire an ownership interest in their employer's business, and thereby to give such employees a greater stake in the success of the business. An option will qualify as an ISO only if it is granted to an individual employee by his employer corporation, and if a number of requirements are met relating to option price, term, and exercisability. In enacting Section 422A, Congress indicated its intent to reinstate special tax treatment for employee stock options in a manner generally similar to that which had previously applied to Restricted Stock Options ("RSOs") and Qualified Stock Options ("QSOs").

However, Section 422A contains two significant limitations -- the Sequential Exercise Rule and the Ceiling Limitation -- which prevent ISOs from serving as useful a function for corporations and their employees as did RSOs and QSOs. The Sequential Exercise Rule provides that an ISO must not be exercisable while there is outstanding any other ISO which was granted, before the granting of the subject ISO, to the same optionee to purchase stock in his employer corporation or its parent, subsidiary or successor corporation. For this purpose, an ISO is treated as outstanding until it is exercised in full or expires by reason of lapse of time. The Ceiling Limitation provides that the aggregate fair market value (determined as of the time the ISO is granted) of the stock for which an employee may be granted ISOs in any calendar year shall not exceed $100,000 plus any "unused limit carryover" from each of the three immediately preceding calendar years. The "unused limit carryover" is one-half of the excess, if any, of $100,000 over the aggregate fair market value (determined as of the time the option is granted) of the stock for which the optionee was granted ISOs by the employer corporation in the calendar year. The basic purpose of Section 422A would be best served by the repeal of the Ceiling Limitation and the Sequential Exercise Rule. At the very least, those limitations should be substantially amended to exclude situations to which they clearly should not apply.

The Sequential Exercise Rule and the Ceiling Limitation were both included in Section 422A for the avowed purpose of preventing perceived "abuses" of the kind which occurred with respect to RSOs during the 1950s and 1960s. They both appear to be based on the assumption that it is in the interest of the Treasury and corporate shareholders alike to substantially limit the amount of tax-favored incentive which may be given to a key employee. That assumption is clearly invalid, in light of the facts that (1) the Treasury will generally derive more tax revenue from a corporation's use of ISOs than from the use of nonstatutory incentive devices and (2) a corporation may have the greatest need for flexibility in granting ISOs just when the Ceiling Limitation and Sequential Exercise Rule would impose the most severe limitations. Therefore, since both the Sequential Exercise Rule and the Ceiling Limitation are counter-productive for all parties concerned, they should be repealed in their entirety.

Even if one accepts the basic premise of these two rules, they certainly impose more severe limitations than are truly necessary to prevent the perceived "abuses". The Ceiling Limitation of $100,000 is too low in many situations to permit the kind of equity opportunity necessary to attract the employees capable of contributing the most to a company; and the fact that the limitation is most severe in the first year of employment greatly undermines the usefulness of ISOs in giving a new employee a major stake in the success of the company from his first day on the job. These problems could be ameliorated by amending the Ceiling Limitation to provide for a significantly higher amount and to provide for an unused limit carryback from the three immediately succeeding years.

The Sequential Exercise Rule in its present form prevents the exercise of options in numerous situations where the employee would not receive a benefit comparable to the resetting of an option price to reflect a decline in stock value. Several such situations, which were recognized by Congress in 1964 and provided for in Section 422 of the Code (relating to QSOs), are ignored by Section 422A. These situations could be dealt with more equitably by amending the Sequential Exercise Rule in two respects: (1) An optionee should be permitted to exercise, without penalty, a later-granted higher-priced ISO at any time. (2) An ISO should not be treated as "outstanding" for purposes of the Sequential Exercise Rule until the first day on which it is exercisable by its own terms.

Use of ISOs Has a Revenue-Enhancing Effect

Both the Sequential Exercise Rule and the Ceiling Limitation are intended to effectuate the policy that the grant and exercise of ISOs should be limited in amount. The legislative history of past and present statutory stock option provisions indicates that such a limitation has been perceived as furthering the interests of the federal fisc as well as the shareholders of the corporations which grant ISOs to their employees. However, objective analysis reveals that the interests of the Treasury would be maximized by removing the present limitations on the use of ISOs.

Congress has recognized that one of the two main functions of statutory stock options is to provide incentive compensation for key employees, the other being to make it easier for such employees to obtain a proprietary interest in the business. Since ISOs are generally presented by the employer, and viewed by the employee, as part of a total compensation package, one can assume that where an ISO is not available some other form of incentive compensation (in a roughly corresponding amount) will be used. Therefore, in order to analyze the effect of ISOs on the federal fisc, it is necessary to compare the tax revenue effects of ISOs and alternative forms of compensation.

An employee recognizes no taxable income upon grant or exercise of an ISO, and the employer is entitled to no tax deduction. At the time of eventual disposition of the shares acquired through the ISO, an employee who has complied with the holding period requirements will recognize long-term capital gain in the amount of the difference between the amount received on the disposition and the exercise price. The following example shows the net amount of tax revenue generated by use of an ISO: Assume that Company grants to Employee in 1982 an ISO covering 1,000 shares of its common stock at an exercise price of $10 per share (its then fair market value). Employee exercises the ISO in full in 1985, when the fair market value of the stock is $15 per share. He eventually disposes of all of the stock in 1988 for $18 per share. Employee will be taxed in 1988 at long-term capital gain rates on $8,000 of income. Assuming that Employee is in the 50% individual tax bracket, he will pay $1,600 in federal income tax. Company's tax burden will not be reduced by the transaction. Therefore, the Treasury will net $1,600 in taxes in 1988.

If the employer uses any other form of incentive compensation --nonstatutory stock option, phantom stock plan, cash bonus plan, etc. -- the employee will recognize ordinary income and the employer will be entitled to a deduction at the time the money or property is transferred to the employee. Any further gain subsequently realized by the employee with respect to the property will be taxed as long-term capital gain, assuming that he has held the property for more than one year. The net amount of tax revenue generated by nonstatutory incentive compensation in the amount of $5,000, received in 1985, is shown by the following variation on our prior example: Assume that Company grants to Employee in 1982 a nonstatutory stock option covering 1,000 shares at the then fair market value of $10 per share. As in the prior example, Employee exercises the option in full in 1985, when the fair market value is $15 per share, and eventually disposes of the stock in 1988 for $18 per share. Employee will be taxed in 1985 at ordinary rates on $5,000 of income and in 1988 at long-term capital gain rates on $3,000 of income. Assuming a 50% individual tax bracket in both years, Employee will pay $2,500 in tax in 1985 and $600 in tax in 1985. However, Company will be entitled to an ordinary business expense deduction in the amount of $5,000 in 1985. Assuming that Company is in the 46% corporate tax bracket, it will reduce its federal income tax liability for 1985 by $2,300 by reason of the deduction. Therefore, the Treasury will net $200 in taxes in 1985 and $600 in taxes in 1988.

The foregoing examples illustrate the revenue-enhancing effect of the use of ISOs instead of alternative, nonstatutory incentive compensation devices. The effect would be more dramatic in the case of most employees, who would have taxable income substantially below $162,400 in 1985 and would therefore be in a marginal tax bracket lower than 50%. This revenue-enhancing effect was acknowledged by Congress in the Committee Reports accompanying the Economic Recovery Tax Act of 1981, which estimate that Section 422A will reduce tax receipts by less than $5 million in 1981 through 1984 and increase receipts by $11 million in 1985 and $21 million in 1986. H.R. Rep. No. 97-201, Committee Print, p. 262 (July 24, 1981); S. Rep. No. 97-144, Committee Print, p. 101 (July 6, 1981). Therefore, tax revenue considerations support the increased use of ISOs rather than limitations on their number and amount. Such limitations would be justified only if they appear necessary to advance some other proper legislative goal.

The Ceiling Limitation Should Be Repealed Because It Serves No Proper Function

The legislative history of Section 422A suggests no specific reason for the imposition of the Ceiling Limitation. No such limitation was imposed upon either RSOs or QSOs, and there is no evidence of past "abuse" of statutory stock options related to the amount of stock made subject to individual option grants. As demonstrated above, the Ceiling Limitation clearly does not increase tax revenues. It is not needed for the protection of the granting corporation or its shareholders, since individual options must be approved by the Board of Directors, which is elected by and accountable to the shareholders. Moreover, the option plan itself must be approved by the shareholders, and a ceiling limitation may be included in any corporation's individual plan if the shareholders or directors deem it necessary.

The Ceiling Limitation is a positive hindrance to the effective use of ISOs in many situations. Most common is the situation in which a small corporation wishes to bring in a new chief executive officer. In order to attract a person of the calibre desired, it is often necessary to offer an opportunity for major equity participation in the company from the beginning of employment. The $100,000 Ceiling Limitation usually does not accommodate that need, forcing the company to use nonstatutory stock options and other stock purchase vehicles to make up the difference. The new employee may receive the right to purchase the same amount of stock by other means, but at a much greater cost to the employee, the company (which will somehow "reimburse" the employee), and the Treasury. Therefore, absent some evidence that it serves a useful purpose, the Ceiling Limitation should be repealed in its entirety.

The Sequential Exercise Rule Should Be Repealed to Permit Escape from "Underwater" Options

The Sequential Exercise Rule effectively destroys the usefulness of ISOs as incentive devices during any time in which stock prices are declining. In 1964, and again in 1981, Congress apparently concluded that such a result was necessary to protect the rights and interests of the shareholders of the employer corporation. It was thought that the Sequential Exercise Rule would provide an incentive to key employees to prevent the value of their employer's stock from declining, and would force them to share in the economic loss experienced by shareholders in the event of such a decline. One of the primary charges leveled against the use of RSOs in the 1950s was that the practice of effectively lowering the exercise price on "underwater" RSOs (by granting new RSOs which could be exercised before the prior-granted higher-priced ones) was unfair to shareholders, who would not have a similar opportunity to "start over." Therefore, the Sequential Exercise Rule was adopted partly to insure that statutory stock options could not be used to reward key employees for poor performance.

While this argument has a certain superficial appeal, it is not compelling when considered in the context of corporate management needs. A decline in the value of a corporation's stock may or may not be a result of poor performance by officers and other key employees. General economic conditions, as well as technical market factors, often cause temporary, across-the-board changes in stock values, despite the performance of the personnel of individual companies. The Board of Directors of a corporation has the responsibility of determining whether a decline in stock value is attributable to poor management; if so, the Board will ordinarily seek to remove those who have performed inadequately and find more promising replacements. But if the decline in value has resulted largely from external factors, the Board may properly determine that the interests of the corporation and its shareholders will be best served by providing key employees with a renewed incentive to make the company more successful.

Since the grant of ISOs must be approved by the corporation's Board of Directors, one can assume that the true, long-term interests of the shareholders will be reflected in any decision to provide key employees with a method of escape from "underwater" options. Therefore, rather than protecting shareholders from nonaccountable officers and employees, the Sequential Exercise Rule often deprives the corporation of the means by which it can provide a renewed incentive to key employees in times of a declining market. Repeal of the Sequential Exercise Rule is necessary to remove corporate compensation decisions from the Internal Revenue Code and return them to the corporation's Board of Directors.

The Sequential Exercise Rule Should At Least Be Limited to True "Abuse" Situations

Even if one accepts the basic policy that a corporate employer should not be able to effectively reset the exercise price of an ISO following a decline in the fair market value of the optioned stock, the Sequential Exercise Rule contained in Section 422A(b)(7) of the Code is much broader in effect than is necessary to enforce that policy. As presently constituted, the rule restricts the exercise of ISOs in several common situations which do not violate the underlying policy. This overreach results primarily from the failure of the rule to take account of the fact that most ISOs are made exercisable in installments.

It is very common for the first one or two installments of an optionee's later-granted ISO to become exercisable before the last one or two installments of a previously-granted ISO. However, under the present rule, an optionee may not exercise any part of an ISO while any part of any previously-granted ISO (regardless of exercise price) remains outstanding. For example, if Employee is granted Option #1 in 1982 at an exercise price of $10 per share, exercisable cumulatively in four equal installments in 1983, 1984, 1985, and 1986, and is granted Option #2 in 1983 at an exercise price of $12 per share, exercisable cumulatively in four equal installments in 1984, 1985, 1986, and 1987, the Sequential Exercise Rule will prohibit the exercise of any part of Option #2 until 1986.

Congress recognized that this result was not necessary to implement the basic policy of the Sequential Exercise Rule when it enacted Section 422 of the Code (governing QSOs) in 1964. Accordingly, Section 422(c)(6) provided, in essence, that the Sequential Exercise Rule would not apply where the exercise price of the later-granted QSO was not lower than the exercise price of the previously-granted QSO. The Senate Committee which added that provision in 1964 determined that "there was no need to deny the right to exercise the second option in those cases where the taxpayer could gain no price advantage." S. Rep. No. 830, 1964 U.S. Code Cong. & Admin. News 1766. The legislative history of Section 422A does not indicate that Congress specifically intended to make the Sequential Exercise Rule more restrictive than it had been with respect to QSOs; therefore, one can only assume that the failure to include in Section 422A a provision corresponding to Section 422(c)(6) was merely an oversight. Such a provision should be added as a technical amendment to Section 422A.

There are other situations in which an optionee should be permitted to exercise the "vested" portions of a later-granted ISO while some portions of a previously-granted ISO remain "unvested" (even at a higher price), because the true motivation for exercising the later-granted ISO is not to effectively reset the exercise price of the previously-granted ISO. Perhaps the most important such situation is termination of employment by an optionee who holds two or more ISOs. As noted above, employers ordinarily make ISOs exercisable in installments over a period of three to ten years, so that the employee "earns" the right to exercise the ISO by continuing to work for the employer. If an employee is granted two or more ISOs and terminates employment prior to the vesting of the last installment of the first-granted ISO, the Sequential Exercise Rule will prevent him from exercising any part of any later-granted ISO. This result will occur despite the fact that the employee has "earned" the right to exercise the vested portions of the later-granted ISOs by working for the employer during the years prior to termination. The employer could assist the employee by accelerating the vesting of the earlier-granted ISO pursuant to Section 425(h)(3)(C) of the Code, but the employer may be unwilling to do so in a termination situation. For example, assume that Employee is granted Option #1 in 1982 at an exercise price of $10 per share, exercisable in ten equal installments vesting annually through 1992. In 1985, Employee is granted Option #2 at an exercise price of $8 per share (reflecting current fair market value), similarly exercisable in ten equal installments vesting annually through 1995. When Employee terminates in 1990, he will have earned the right to exercise 50% of Option #2. However, unless Company is willing to accelerate the exercise schedule of Option #1, Employee will not be permitted to exercise any of Option #2.

The same problem arises where an employee who has been unable to exercise any of his ISOs due solely to a lack of cash obtains the necessary funds through inheritance, bonus compensation, or other similar event. The employee may then wish to exercise all of the stock purchase rights which he has earned pursuant to all of his outstanding ISOs. However, if a later-granted ISO has a lower exercise price than any previously-granted ISO which is still outstanding, the employee will not be allowed to obtain any of the stock subject to the later-granted ISO, even if a provision corresponding to Section 422(c)(6) has been added to Section 422A. As in the example of termination of employment set forth above, the employee who wishes to exercise all vested portions of his outstanding ISOs is not motivated by a desire to effectively reset the exercise price of his earlier-granted ISOs, but by the desire to obtain immediate ownership of all the shares which he has earned the right to buy. If the employee's primary goal were to lower the exercise price for his options, he would not exercise any options at all while the earlier-granted higher-priced options remained outstanding; rather, he would wait until the earlier-granted higher-priced options had expired and then exercise the later-granted lower-priced options in full.

It should also be noted that merely treating unvested portions of an ISO as nonoutstanding for purposes of the Sequential Exercise Rule will not permit wholesale reduction in the exercise prices of "underwater" options. The vested portions of outstanding earlier-granted options would still be required to be exercised before the vested portions of later-granted options. In the example given above concerning termination, the employee would still be required to exercise 80% of Option #1 at an exercise price of $10 per share before exercising the vested 50% of Option #2 at $8 per share. Since employers have a strong interest in continuing to require employees to "earn" the right to exercise ISOs, it is very unlikely that they would attempt to abuse the proposed "nonvested-nonoutstanding" rule by making new lower-priced ISOs immediately exercisable in full. Therefore, even after the institution of the proposed "nonvested-nonoutstanding" rule, an employee would not be able to exercise all of the vested portions of a later-granted ISO prior to the expiration of all earlier-granted ISOs unless he first exercised all earlier-granted ISOs in full.

Two amendments should be made to Section 422 to prevent overly broad application of the Sequential Exercise Rule. First, a provision similar to Section 422(c)(6) should be added to permit the exercise of later-granted higher-priced options at any time. Second, Section 422A(c)(7) should be amended to provide that an option shall not be treated as outstanding for any period before the first day on which (under the terms of such option) it may be exercised. The second proposed amendment is similar to the "nonvested-nonoutstanding" rule included in Section 422(c)(2) with respect to certain RSOs.

Technology In Society, Vol. 3, pp. 281-289 (1981)
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0160-791X/81/010281-09$02.00/0
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Advancing Technological Innovation Through Tax Policy

Edwin V. W. Zschau

During 1981, the US Congress will formulate and enact a series of changes to the existing tax laws. Many factors will be considered in the process: the amount of tax revenue generated, the impact on various income groups, the effects on business activity, fairness, and the simplicity of implementation. The purpose of this paper is to make the case that there is another factor which should be considered when formulating tax policy in the 1980s: the impact of tax policy on the rate of technological innovation in the United States.

This case is based upon the following fundamentals:

- Leadership in technology is the most valuable national resource of the United States.
- US leadership in technology has been on a steady decline over the past 20 years.
- Fostering technology advancement requires both freedom and incentives for innovators.
- Tax policy is the most powerful instrument in the hands of the Federal government for fostering technological innovation.

Here are the specifics.

Technological Leadership — The Most Valuable Resource

The quality of life of American citizens depends upon having a strong economy that is able to produce an abundance of goods and services and also provide enough well-paying jobs. The US quality of life depends upon a strong national

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defense that makes any attack by foreign aggressors unthinkable. Technology is the key to both a strong economy and a strong defense.

The Economic Impact of Technology

- *Technological innovation is fundamental to economic growth.* The country is able to grow when it finds better, more efficient ways to do things and when it develops new products that meet unfulfilled consumer needs at home and abroad. Professor R. Solow of the Massachusetts Institute of Technology confirmed this in a study showing that approximately 80% of the growth in GNP of the United States between 1909 and 1949 was due to technical change; subsequent studies have reduced this number, but agree that it has been the single largest factor in such growth.
- *Technological innovation is fundamental to productivity improvements.* Through the ages, the physical capabilities of people have been enhanced by machinery, leaving more time for intellectual activities. More recently, the power of the human intellect has been extended by computers, data storage, communications systems, and visual display devices. Now the US is entering the age of robotics in which the two are combined to do certain work more effectively and efficiently than ever before. It's not surprising that a recent Brookings Institution study determined that more than one-half of the productivity increases in the United States between, 1948 and 1969 were the direct result of technological innovation.
- *Technological innovation is fundamental to international trade competitiveness.* In recent years, while the export performance of the United States has produced some disturbing trends with trade deficits of $26.5 billion in 1977, $28.4 billion in 1978, and $24.7 billion in 1979, exports of R&D-intensive products (*e.g.*, high technology electronics, capital equipment and pharmaceuticals) have shown excellent growth. From 1960 to 1979, R&D-intensive manufacturing industries increased their export surplus from $5.9 billion to $29.3 billion. During the same period, the trade balance of industries without technological bases declined from near zero to a negative $16.5 billion. With the country's trading partners recognizing the importance of innovation and technology, it is becoming even more important to emphasize technology advancement as the key to competitiveness at home and abroad.

The Need for Technology in Defense

If it is assumed that maintaining a parity in weapons with the Soviet Union is essential to a strong national defense, the country must rely on technology and its implementation in weapons systems as the basis for its defense strategy. Over the past decade, the Soviet Union has eroded much of the advantage that the US used to have by improving the power and accuracy of their strategic weapons and by increasing dramatically the amount of military equipment they produce. Although the situation is not yet desperate, the trends are frightening and need to be reversed immediately.

The trends can't be reversed by trying to regain numerical superiority. That approach would be financially unfeasible and ineffective. However, they can be reversed by using US technology, which in important areas is far more advanced than that of the Russians. The US has the technology to make munitions more accurate; aircraft, submarines, and missiles more difficult to detect; and surveillance and electronic warfare systems more effective. In the 1980s, US defense must be based on the use of *finesse* through technological innovation rather than on pure *force*.

US Technological Leadership Is Declining Badly

Over the past 20 years, US technological leadership has been seriously eroded. It hasn't been squandered, as some other resources have been through overuse and waste. It has been frittered away through neglect.

The emphasis on R&D in the US has been on a steady decline over the past two decades. In the 1960s, R&D expenditures grew about 6.5% per year, but in the 1970s the annual growth of R&D was only 1.6% annually. In fact, in constant (1972) dollars US R&D expenditures in 1977 were no more than they were in 1967.

In 1964, the US spent 3% of GNP on research and development, but by 1979 it spent only 2.2%. During a comparable period, two of its most aggressive trading partners — Japan and West Germany — were increasing their R&D expenditures. Table 1 compares the trends in these nations to those in the United States and provides data which suggests the economic implications of those trends.

Given the decline in R&D expenditures in the United States, it's not surprising that US leadership in technological contributions has declined as well. In the 1950s, the United States was credited with 80% of the major inventions made during that period. However, during the 1970s, its share of major inventions had dropped to 60%. In addition, from 1964 to 1979 the US patent balance, the percentage of US patents granted to US citizens, rather than foreign inventors, dropped from 88% to 62%.

TABLE 1. Comparison of Trends

Trends	% United States	% Japan	% West Germany
R&D as a percentage of GNP			
1964	3.0	1.5	1.6
1976	2.3	1.9	2.3
Average annual rate productivity improvement 1960–78	2.6	8.5	5.4
Share of world's exports			
1960	18.0	4.0	10.3
1977	11.8	8.0	11.5

Although the statistics cited here are disturbing, the situation is not hopeless. Since technological innovation is derived from the talent of its people, it is within US control. That cannot be said for energy sources or many raw material supplies. Indeed, the growing dependence of the United States on foreign energy and raw materials makes it all the more important that America's potential for technological innovation be realized.

Fostering Technological Innovation — Freedom and Incentives

With technology so important to the national interests, yet declining in America, the Federal government must act with a sense of urgency to stimulate technological innovation. Maintaining and extending technological leadership should be a national priority.

Unfortunately, changes in the rate of technological innovation will come slowly. Innovation can't be *forced;* it can only be *fostered.* It is fostered by creating an environment that emphasizes *freedom* of scientific and industrial activities and that offers *incentives* to the innovators, entrepreneurs, and investors who have the talent and resources to advance technology. Massive government R&D programs aren't the answer. Innovation doesn't thrive in bureaucracies. Innovation takes place when an individual or a small group gets an idea, has the freedom to pursue it — perhaps to succeed but maybe to fail — and can realize some attractive reward if successful.

Most of the commercially useful breakthroughs in genetic engineering have taken place in the laboratories of small companies run by entrepreneurs, not in the huge pharmaceutical corporations. The development of the American semiconductor industry is a history of entrepreneurship and small company contributions. In fact, according to a 1967 Department of Commerce report, more than half of the major technological advances in this century originated from individual inventors and small companies.

Technology-Oriented Tax Policy Is Needed

Starting today the US must begin to recreate an environment in America that fosters innovation. It should be an environment based on free enterprise, free trade (with strict bilateral reciprocity), and freedom from unnecessary regulation. It should also be an environment with incentives that encourage investment, risk-taking, new ideas and entrepreneurship.

Eliminating ill-conceived regulations and government programs to protect and subsidize noncompetitive enterprise will go a long way toward unleashing creative forces and encouraging proper allocation of resources. However, the most powerful instrument available to the Federal government for fostering technological innovation is a tax policy that stimulates investment, entrepreneurship, and technical education and research.

Over the past two years the country has seen the powerful effect that such tax policy can have on economic growth and technological development. In 1978, the American Electronics Association, a trade association of more than 1,300 high-technology companies in the United States, presented to Congress the results of an extensive survey of the environment facing young, innovative electronics firms. That survey documented the importance of young companies in solving the nation's unemployment problem. It showed that young companies create jobs 20–115 times faster than mature companies in the electronics industry. In fact, although the mature companies in the survey average 27 times more employees than the younger companies, the younger companies were creating more new jobs per firm per year than the mature companies.

The AEA survey confirmed that risk-capital investment is essential to the start-up and growth of high-technology companies. Such companies require constant infusions of risk capital in order to finance their growth and employment increases. On the average, about $14,000 of risk capital was needed to create each job in the electronics industry since 1955.

In addition to the creation of jobs, these young companies, if adequately financed, generate other benefits to the country. For example, for each $100 invested in electronics companies founded during 1971–75, by 1976 those companies were generating $70 per year in exports, spending $33 per year on R&D, and accounting for $30 per year in Federal income taxes. In other words, the study documented the remarkable fact that the Federal government could get a 30% annual return on the risk capital invested by individual investors if only those investors had adequate incentives to make such investments!

Unfortunately, those incentives had been substantially reduced during the 1970s with the doubling of the maximum tax rate on capital gains from 25% to 49%. As a result, the risk capital needed to start and finance the growth of high-technology companies had all but dried up. In the period 1971–75, companies in the electronics industry were able to raise less capital (in constant 1972 dollars) than at any time in the prior 15-year period.

In order to rekindle the incentives for needed risk-capital investment, the AEA strongly urged in 1978 a sharp reduction in the tax on capital gains on the grounds that it would once again make risk capital available to young companies. Since such a reduction would have a stimulative effect on the economy and the stock market, the AEA predicted that this tax cut would increase Feeral tax revenues rather than decrease them.

1978 Revenue Act Highlights

The Revenue Act of 1978 contained a reduction in the maximum capital gains tax rate to 28%. The results of that new incentive have been extraordinary. Here are some of the highlights:

- Commitments of new capital to professional venture capital funds during the 18-month period between mid-1978 (when the passage of capital gains tax reduction appeared certain) and year-end 1979 totaled nearly $900 million. This increase in funds, which is now available for investment in young and growing companies, is more than double the total amount of capital committed to such funds during the seven-year period 1970–77.
- Annual investments from such venture capital funds into young companies have

more than doubled since the capital gains tax rates were reduced and, more importantly, more money is now going into start-up situations.

- Young companies are now able to obtain needed capital from the public market far more easily than before the capital gains tax rates were decreased. For example, in the first quarter of 1980 the number of public offerings (31) and the funds raised by them ($139 million) were both more than double the comparable amounts for the first quarter 1979 — a year in which the number of new public offerings was greater than in any of the six previous years.
- Since the Revenue Act of 1978 was passed — despite accelerating inflation, rising interest rates and impending recession — the price appreciation of public company stocks, particularly those of small companies, has been excellent. Between November 1978 and June 1980 the NASDAQ index rose nearly 97% and the AMEX index rose 55%. Importantly, by September 16, 1980, the Standard and Poor's 500-stock index reached a level 41.6% above its close on April 13, 1978, thereby exceeding the 40% increase in stock prices that had been projected by Chase Econometric Associates, Inc., to occur by 1982 as a result of the capital gains tax reduction.
- Cutting the capital gains tax rates has not resulted in the large revenue loss that the Treasury had predicted. Instead, the Treasury collected $8.3 billion in capital gains taxes in 1979, the first year of the lower rates, *up* 14% from the $7.3 billion collected in 1977, and the $7.2 billion collected in 1978. The Treasury is collecting more at the lower rates than at the higher rates without even including the higher corporate and personal income taxes resulting from the economic stimulation that the lower capital gains tax rates are producing.

From the experience of the 1978 Revenue Act and its effect on risk capital needed to promote technological innovation, the country has seen proof of the power of tax policy in creating an environment to foster innovation. What follows are the specific proposals that must be implemented this year in order to provide further stimulus to innovation and to reverse the decline of America's technological leadership.

A Tax Policy for Fostering Technological Innovation

In order to maintain and extend its technological leadership, the US must implement a tax program that stimulates the key ingredients necessary for innovation:

- Risk capital investment;
- Entrepreneurship and individual risk taking; and
- R&D activities and education of technical personnel.

The following program would provide such stimulation and could be implemented easily.

1. *Reduce capital gains tax rates further.* So long as further reductions of capital gains tax rates have stimulative effects, they should continue to be implemented. The country has already experienced the dramatic positive impact of the 1978 reduction. Further cuts will undoubtedly result in additional stimuli to needed investment and risk taking.

It is not clear what the "optimal" capital gains tax rate is, but there are strong indications that exempting capital gains from taxation entirely would be best for our economy. Not taxing capital gains would also put the US in line with the policies of Japan and West Germany, which have had excellent records of technological advancement and economic performance in recent years.

Reductions in the capital gains tax rates should be made in phases every few years — with monitoring of the efficacy of each cut — until further reductions appear to be unjustified. As the next step, the maximum tax rate on capital gains should be reduced to about 15%. This reduction would be about the same percentage decrease as the one made in 1978.

The needed reduction of capital gains tax rates could be accomplished by one of two methods:

- Eliminate the distinction between "earned" and "unearned" income, taxing all income at the maximum rate of 50%, and increasing the excludable portion of capital gains for income tax purposes from 60% to 70%; or
- Increase the excludable portion of capital gains for income tax purposes from 60% to 80%.

In either case, capital gains should be eliminated as a preference item for calculating the minimum alternative tax.

2. *Reinstate restricted stock options.* Such stock options, which were in effect from 1950 to 1964, were a powerful tool for attracting talented scientists, engineers, technicians, and managers to risk their careers in ventures developing new technologies and products. Normally, few employees have the capital needed to become significant owners in the companies that employ them, but restricted stock options provided employees with the benefits of ownership without requiring them to make the up-front cash outlays. Instead of cash they were able to invest their time, careers, and talents.

A series of changes in the tax code from 1964 to 1976 eliminated restricted stock options entirely. Today, companies can grant only "nonqualified" options which are practically useless to most growing companies. Under the present law, when an employee exercises these "nonqualified" options, he must pay taxes — at ordinary income tax rates — on the "paper profit" between his option price and the price of the stock when he buys it. Not only is taxation at ordinary income tax rates inconsistent with what other owners pay on their capital appreciation but, in addition, the employee must pay the tax *before* he actually realizes the gain from selling the stock. It's analogous to taxing the appreciation on a homeowner's house each year even though he doesn't sell it. Employees without reserves of funds may not be able to buy the stock and also pay the tax on a "paper profit."

The terms of restricted stock options would enable an employee to purchase the stock and — if the stock is held for a suitable period — pay a capital gains tax on the difference between his selling price and his purchase price. Tax payments for restricted stock options are not made until the employee has actually realized the gain.

When they were in effect, restricted stock options were found to motivate employees to do a better job and find better ways to do the job. Since a stock option has value to the employee only if the price of the company stock increases through growth in its sales and profits, options give employees a strong incentive to find ways to expand the company's business and conduct that business more efficiently. Business growth creates more new jobs; increased efficiency results in greater productivity; and incentives to develop new ideas result in technological advancement.

In 1980, the Joint Committee on Taxation examined the revenue impact of restoring restricted stock options. The Joint Committee estimated that such a change in tax policy would result in a ***net revenue gain*** to the Treasury of $35 million in the first six years after the legislation is passed.

3. *Offer 25% tax credits to businesses for contributions to technical education programs, for increases (over a three-year base period) in their R&D expenditures, and for contributions to R&D programs conducted by colleges and universities.* The purpose of these tax credits would be to provide private industry with direct incentives to assist in the education of more technical personnel and to step up research and development being done in companies and in academic institutions.

It's a disgrace and a disturbing fact that Japan, with a population half as large as the United States, trains four times as many scientists and engineers per year as the US. Out of every 10,000 citizens in Japan, 400 are engineers and scientists while only one is a lawyer and three are accountants. Out of every 10,000 citizens in the US, only 70 are engineers and scientists, but 20 are lawyers and 40 are accountants. The US is becoming a society of paper-pushers, rather than producers. More money must be focused on training technical personnel and funding the research that they do if the US is to maintain its leadership in technology.

These proposed educational and R&D tax credits should be viewed both as *incentives* for private enterprise to contribute more to technological programs and as *partial funding* by the Federal government of private educational and R&D activities. Private enterprise can select and manage technical programs better than the government can, but by assisting in the funding of those well-managed programs, the government can help to produce efficiently the beneficial effects of faster technological progress.

Although detailed econometric analyses of this particular proposal have not yet been done, Data Resources, Inc., studied the effect of a 25% tax credit for all R&D expenditures (not just increases). That study concluded that during the period 1978–87 such a tax credit would:

- Increase R&D spending by an average of $5.2 billion per year;
- Add an average of $36.2 billion to the GNP per year;
- Add an average of $1.7 billion to U.S. exports per year;
- Increase productivity by an average of .28% per year;
- Reduce the annual increase in the consumer price indexby.42% per year.

These estimates are indicative of the kind of impact that 25% R&D tax credits on *increases* in R&D expenditures would have, but such tax credits would be far more efficient.

Summary

Maintaining its leadership in technology should be a national priority for the United States. The most effective instrument for fostering technological advancement is tax policy. A tax program consisting of:

- Lower capital gains tax rates;
- Institution of restricted stock options; and
- Tax credits for contributions to technical education and R&D increases should be instituted in 1981. Such a program would create in this country an environment that fosters innovation and enables the US to enhance and exploit its most valuable national resource — technology.

THE REPORT OF THE
TASK FORCE
ON
INNOVATION AND ENTREPRENEURSHIP

November 5, 1980

TASK FORCE ON INNOVATION AND ENTREPRENEURSHIP

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INTRODUCTION

The recommendations of this Task Force are designed to increase the levels of both entrepreneurship and innovation within a free enterprise environment. This goal deserves special attention because of the extraordinary potential for economic growth inherent in innovation and entrepreneurship. The problems of mature or declining industries and those of small businesses are not the same as those with which this Task Force has been concerned and they should not be confused. Our commitment is to a free market at home, characterized by minimal government involvement, and free foreign trade. Our assumptions and recommendations will not please everyone in the business community. Inefficient and unproductive companies, faced with competition which they cannot meet, may desire more government involvement in business and higher barriers to trade. Similarly, sole proprietorships, partnerships, and other small businesses may seek special government protection against the rigors of competition. We emphatically reject both views.

As long as innovation and entrepreneurship are fostered, America, as a whole, has nothing to fear and everything to gain from truly free competition. Looked at in this light, the economic growth produced by innovation and entrepreneurship is a guarantor of existing wealth as well as the creator of future wealth. There will probably be few major policy judgements that the new Administration will be called upon to make in which the alternatives are so clear and the results are so predictable. The United States is facing a great economic challenge. This Task Force has every faith that the challenge can be met successfully. We believe that the recommendations we make are essential to that success.

Our work has proceeded from certain assumptions that are grounded in our individual experiences as entrepreneurs in innovative industries—assumptions that we believe are confirmed by the economic history of this country. Among those assumptions are the following:

- Innovation and entrepreneurship play a pre-eminently important role in increasing industrial productivity.

- Higher levels of productivity are essential to economic growth, reduced inflation, successful international competition, and a higher standard of living for our people.

- Business innovation is a creature of, and entrepreneurship depends upon, investment and the availability of capital.

- Chronic inflation has resulted in incentives to spend and consume and few incentives to save and invest. This problem is accelerated by tax policies predicated on an invidious distinction between "earned" and "unearned" income.

- Unnecessary and confusing regulation greatly discourages risk takers. Though not specifically embodied in the recommendations of this report, expansion of innovation and entrepreneurship requires the reduction of this burden. Steps that may be taken to reduce the undesirable effects of regulation should include a rigorous cost/benefit analysis of all legislation, a sharp reduction of the broad rule-making authority of federal agencies, and an insistence upon regulatory consistency and predictability by the executive branch.

- Innovative industries can be the backbone of future successes in foreign trade. We, therefore, believe that an enlighted _free_ trade policy, based upon strict bilateral reciprocity, must be the goal of U.S. trade negotiators. Moreover, greater attention should be given to non-tariff trade barriers existing outside the literal language of tariff laws.

- Policies that seek to aid declining, noncompetitive industries erode the "freedom to fail", distort the work of market forces, and discourage the best use of economic resources.

SUMMARY OF RECOMMENDATIONS

In order to spur innovation and entrepreneurship, this Task Force recommends the following:

1. Encourage capital formation and investment by reducing the maximum tax rate for long-term capital gains _and_ by permitting a capital investment to be "rolled-over" to succeeding investments without being taxed so long as funds remain within the pool of invested capital.

2. Encourage the participation of talented individuals in entrepreneurial enterprises by ending the presently burdensome tax treatment of stock options and by restoring the restricted stock option.

3. Encourage training for business innovation by permitting expanded tax credits to companies making contributions to technical education programs.

4. Expand tax credits both for increased industrial research and development and for privately-funded research and development at colleges and universities.

Our recommendations have been guided by three criteria: importance, ease of implementation, and certainty of results. Not every issue has been addressed, nor every form of action explored. But if our suggestions are adopted, innovative entrepreneurs will find ways to handle remaining problems. The ability to solve problems creatively is, after all, the virtue of entrepreneurial innovation and the justification for supporting these proposals.

THE IMPORTANCE OF INNOVATION

Business innovation consists of the discovery and application of new business ideas and technical knowledge to create new or better goods and services and new or better ways to produce them. Innovation is, by no means, confined to high-technology industries. A novel industrial process that permits the manufacture of ball point pens more cheaply, efficiently, and reliably can be just as innovative as the development of a new computer product.

The importance of innovation to the economy, and to the society it supports, consists of the indispensible role it plays in increased productivity. Professor R. Solow of the Massachusetts Institute of Technology concluded that, between 1909 and 1949, approximately 80% of the growth in the Gross National Product was due to technical change.[1] A recent Brookings Institution study by Edward Denison demonstrated that more than one-half of the productivity increases in the United States between 1948 and 1969 was the result of technological innovation.[2] Real economic growth, greater employment, cheaper and better products and services, reduced inflation, energy and raw materials conservation, and a higher standard of living are impossible without productivity increases.

Despite the paramount importance of innovation to the health of the American economy, there is abundant evidence that innovation is declining. One leading indicator of innovation is the level of expenditures for research and development. Between 1964 and 1979, the percentage of the GNP devoted to research and development dropped from 3% to 2.2%.[3] The real growth of industrial R & D declined from an average of 6.5% in the period 1960 - 1969 to 1.6% in the period 1970 - 1975.[4] The close relationship between innovation and productivity can be shown by the fact that the rate of industrial productivity had dropped to a negative 0.4% by 1979.[5] Not surprisingly, the U.S. share of manufactured goods exported by the 14 major industrialized countries from 1971 to 1978 declined from 21% to 16%.[6] These dismal trends may well accelerate. The U.S. share of major inventions brought to the world market dropped from 80% in the mid-1950s to 60% in the early 1970s and the ratio of U.S. patents granted to U.S. citizens as opposed to those granted to foreigners declined 47% between 1966 and 1975.[7]

Bleak as these statistics are, they do not convey the full scope of the problem. For while American innovation and industrial productivity has been declining, that of our major economic competitors has been increasing:

	Japan	West Germany	United States
Total R&D as a[8] percentage of GNP from 1964 to 1976.	1.5% to 1.9%	1.6% to 2.3%	3.00% to 2.3%
Average annual[9] rate of productivity improvement from 1960 to 1978.	8.5%	5.4%	2.6%

Given these trends, it should surprise no one that between 1960 and 1977 the Japanese share of world exports rose from 4% to 8% and that of West Germany rose from 10.3% to 11.5%. The U.S. share declined from 18% to 11.8%.[10] Although the statistics cited above are disturbing, the situation is not hopeless. As an aspect of economic growth, innovation may be unique in this respect: deriving, as it does, from the talent of our people, it is wholly within our own control. That cannot be said for much of our energy and raw material supplies. Indeed, the growing dependence of the United States on foreign energy and raw materials makes it all the more critical that America's capacity for industrial innovation be fulfilled.

An environment favorable to innovation and, hence, to increased productivity, will provide a powerful impetus for job creation. An investigation by the American Electronics Association revealed that during the five year period between 1969 and 1974, six large, older companies with combined sales of $36 billion, experienced a net gain of only 25,000 jobs, while five young, high-technology companies, with combined sales of less than $1 billion, had a net increase of almost 35,000 jobs. An economic climate in which innovation and entrepreneurship are encouraged holds the promise of favorably affecting every major index of economic health.

THE ROLE OF ENTREPRENEURSHIP

An entrepreneur is not merely an investor, who accepts risk but no responsibility; nor is he a mere manager, who has responsibility but risks very little. It is the combination of the concepts of risk and responsibility that provides the thrust behind innovation. Innovation can and does occur within the institutional settings of large corporations, universities and government, but the extent to which it is the preserve of the entrepreneur is striking. The commercially useful breakthroughs in the field of genetic engineering have, for the most part, taken place in the laboratories of small companies run by entrepreneurs, not those of the great pharmaceutical corporations. The techniques for providing overnight delivery of small packages anywhere in the United States were developed by a Memphis entrepreneur, not by the airlines, and not by the U.S. Postal Service. The role of entrepreneurship in the development of the semiconductor industry is well known. It may, in fact, be said that the development of the American semiconductor industry is a history of innovation and entrepreneurship.

Even though the central importance of innovation and entrepreneurship to the growth of the American economy is beyond doubt, we have noted the marked decline of both in recent years. There are a number of factors which account for this decline, each of which has been affected directly and adversely by government policy. Other policies can reverse the trend, directly and favorably affecting innovation, entrepreneurship, and the economy as a whole.

CAPITAL FORMATION AND MOBILITY

Innovative business and industry is risk-capital intensive. The innovative entrepreneur must have sufficient capital to see him through the painstaking development and testing phases of a new product during which no financial return can be expected. Capital must also provide the wherewithal to permit start-up manufacturing and marketing of a product and to support those activities long enough to reach the point at which a return on investment may be foreseen. Obviously, the employment of capital in this manner is inherently risky. The prudent investor will finance such efforts only when the promise of reward is sufficiently great to warrant the risk.

Government taxation policies have a direct effect on the calculation of return versus risk and, therefore, on the availability of capital for the creation and development of new and innovative businesses. This proposition has been demonstrated so concretely as to be beyond question. Prior to 1969, the maximum tax on long-term capital gains was 25%. The 1950s and '60s saw a veritable explosion of innovation and entrepreneurship fueled by venture capital made available by people who were willing to accept high risk for the prospect of high reward. The increases in the capital gains tax rate during the 1970s greatly decreased capital availability and severely inhibited entrepreneurial development.

Increased taxation meant, simply, that potential rewards decreased while the risk remained the same. Holders of capital reacted in an entirely rational and predictable fashion, redirecting their investments toward lower risk and less innovative endeavors. The adverse impact of increased capital gains taxes was so clear and so immediate that Congress reversed itself in 1978, adopting the Steiger Amendment which reduced the maximum rate to 28%. In less than a year, the availability of risk capital began to improve.

Tax Reductions and the Impact on Tax Revenues

The introduction of the Steiger Amendment raised fears that reduction of the capital gains rate would result in revenue shortfalls, larger federal deficits, and a "windfall" to certain individuals. The latter concern was a reflection of the same view which makes a pejorative distinction between "earned" and "unearned" income, meaning income from investment as opposed to income from wages. In fact, Treasury Department studies have shown that revenue losses caused by the reduction in the capital gains tax rate have been offset by tax revenues generated by increased business activity which would not have occurred without the tax reduction. Passage of the Steiger Amendment has been accompanied by an increase of more than $200 billion in total equity values over the past 2 years, led primarily by shares in the smaller companies where innovation and entrepreneurship are concentrated.

Therefore, it is the recommendation of this Task Force that the Administration give strong support to legislation pending before Congress which would increase the untaxed portion of capital gains from 60% to 70%. Further, these long-term gains should be not treated as tax preference income for purposes of calculating the minimum tax. Every decrease in the capital gains tax rate improves the investment community's risk/reward equation and promotes the greater availability of capital to entrepreneurs with economically useful new ideas.

The Task Force also urges the enactment of legislation which would permit the benefits of long-term capital gains treatment to be "rolled-over" to succeeding capital investments so that the sale of an investment is regarded as a taxable event only if funds remain uninvested for some reasonable period. In practical terms, this means that the proceeds from the sale of stock in one enterprise which are re-invested in the stock of another enterprise would not be subject to taxation. A given block of capital funds could be invested and re-invested any number of times and be taxed at the end of the process at the rate appropriate for the entire period of time the funds were used as investment capital regardless of how often the capital was rolled-over. A reduction in the capital gains tax rate combined with a roll-over provision can meet two seemingly contradictory capital needs of American business: capital fluidity and capital commitment. Roll-over provisions will assure that investment funds can be moved quickly to serve and exploit the most economically beneficial enterprises. A capital gains rate reduction will assure a large and expanding pool of investment capital. This combination will protect the long-term availability of the funds necessary for innovative entrepreneurs to create new products, markets and enterprises.

INDIVIDUAL INCENTIVES

Assuming that an entrepreneur with an innovative idea manages to raise sufficient risk capital to begin his business, he must then confront the difficult challenge of attracting talented people to his organization. The challenge is difficult because he will be competing for talent with established corporations, the government, and colleges and universities which can guarantee employees comfortable incomes and secure careers. While investors risk their money, employees risk their futures—perhaps a more daring prospect. It is essential that a prospective employee see sufficient potential for reward to make it rational to leave the security of a lower risk job to join an innovative business.

The incentives provided by the present system are inadequate. The most persuasive device businesses use to attract new talent is the employee stock option. With little or no immediate cash outlay, the stock option permits the employee to participate financially in the future success of the business. Unfortunately, one result of the Tax Reform Act of 1976 is that all gains through stock options granted to key employees by new corporations are taxed at the time the employee exercises an option. The entire amount of the difference between the option price and the fair market value of shares at the time of exercise is taxed as ordinary income to the employee. If a business has been successful and its stock has increased in value during the option period, the employee faces a substantial tax liability. Forced to sell his stock to pay this tax bill, the employee is left with little ownership in the company he has helped create. Ironically, this approach results in reduced tax revenues to the Treasury due to the simultaneous tax deduction taken by the corporation.

Therefore, the Task Force proposes the enactment of a new employee stock option provision, similar to the "Restricted Stock Option" rule which was in effect from 1950 to 1964. We support the proposal embodied in Section 224 of the Tax Reduction Act of 1980, now pending before Congress, which would create a new class of "incentive stock options." Unless the foregoing change is made, stock options will not provide the incentive for talented employees to join fledgling companies in sufficient numbers to make such businesses successful. An innovative idea may be the work of a single mind; its transformation into an innovative business is the work of many minds.

TECHNICAL EDUCATION AND TRAINING

Even if taxation policies are adjusted to increase the availability of risk capital and make it easier to attract managerial and technical talent to new enterprises, the benefits will be lost unless the number of engineers and highly skilled technicians is sufficient to support commercial development. This Task Force finds cause for concern in the fact that Japan is producing more engineers than the United States. In order to assist our schools in educating the skilled technical people required by innovative business, significant tax credits should be available to private industry for its contributions to technical education programs at all levels—high schools, technical schools, colleges and universities. At a time when the resources of most educational institutions are severely strained, the encouragement of funding by business and industry can be of enormous assistance in helping to provide the trained manpower needed for the innovative tasks at hand.

RESEARCH AND DEVELOPMENT

To a large extent, innovation is a function of research and development expenditures—indeed, technical innovation is impossible without R&D. This Task Force, therefore, recommends strong support of the legislation introduced by Senator John Danforth permitting a tax credit to businesses which increase their research and development expenditures. The legislation calls for a 25% tax credit on increases in R&D over the prior 3-year period. It is important to understand that industrial research and development generally provides a greater immediate benefit to the economy than government-funded R&D because the former usually is aimed at commercially exploitable innovation. Special care should be taken that government policy offers genuine incentives for expanding such activities.

We, furthermore, recommend support for a bill introduced by Representative Charles Vanik that would provide a tax credit to industry for up to 25% of its contributions to research and development at colleges and universities. This proposal is a logical complement to our recommendation that tax credits be given to private business for contributions to technical education. An important aspect of technical training is the hands-on experience students derive from participating in the basic and longer-term research programs of universities and colleges. Support of these R&D programs by business and industry will increase such opportunities. The technical training thus provided will help equip graduates for innovative work in industry.

CONCLUSION

We offer a concise program of proposals:

1. Reduce capital gains taxes to provide risk capital.
2. Reinstate the restricted stock option to provide incentives to creative people.
3. Provide tax credits to expand technical education.
4. Provide tax credits to expand industrial and academic research and development.

These proposals, carried forward in an environment of free trade and reduced regulation, should assure the continued vitality of innovative business in America. We must, as a nation, think and work our way to economic health. The essence of what we have proposed is very simple: Give incentives to working thinkers.

NOTES

1. Solow, R., "Technological Change and the Aggregate Production Function," Review of Economics and Statistics. August, 1957.

2. Denison, Edward F., The Brookings Bulletin, Vol. 15, No. 2.

3. Science Indicators, 1978, Report of the National Science Foundation, Appendix Table 1-1.

4. Ibid.

5. Council of Economic Advisors, "Private Industry Productivity" and Bureau of Labor Statistics Report, February 27, 1980.

6. U.S. Department of Commerce, 1979. Bureau of Economic and Policy Research.

7. Science Indicators, 1976, Report of the National Science Board, National Science Foundation, 1977. Appendix, Tables 1-15, 1-A.

8. Science Indicators,1979. Report of the National Science Board, National Science Foundation.

9. U.S. Bureau of Labor Statistics and Citibank Economic Department estimates for manufacturing. Citibank Economic Report. August, 1979.

10. U.S. Department of Commerce, International Economic Indicators.

THE UNITED STATES VENTURE CAPITAL INVESTMENT MARKETPLACE

S.E. PRATT

President, Capital Publishing Corporation

Summary:

While the United States venture capital industry is young and small in relation to the nation's total capital markets, it has achieved a significant positive impact upon new business development -- the most productive segment of the United States economy. Venture capital investment is a unique discipline combining ongoing investor involvement over a long term, generally five to ten years, with dedicated entrepreneurs for continuing business development. Investments range from the creation of new businesses through ongoing support until more traditional sources of investment capital can be attracted for continuing growth and expansion. Venture capitalists generally finance a perceived strong management team with a business concept that is driven by market needs rather than unique product development. Many investments are related to applications of technologies which effect productivity increases. The United States venture capital industry has gained experience and professional status over the past decade and is currently operating in a favorable environment. If long-term investment discipline can be maintained and the current emergence of experienced business managers to serve as entrepreneurs continues, the United States will benefit from the birth of productive new businesses.

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Since the 1960s Capital Publishing Corporation of Wellesley Hills, Massachusetts, has been a leading source of information on the venture capital industry. I am president of that firm and also publisher and editor of Venture Capital Journal -- reporting and analyzing business development investing since 1961 -- and editor of the 5th Edition of Guide to Venture Capital Sources, which through articles and directories serves to assist entrepreneurs in locating development capital. In early 1980, Dr. Norman Fast and I founded the Venture Economics division of Capital Publishing which, through a computerized database of venture investment activity, provides information, research and consulting services related to business development investment. In the recent past we have provided data and testimony for government agencies, consulting and information services for major corporations and institutional investors, as well as background for the national and international media. I have had more than 20 years experience in investment banking, management consulting for smaller businesses and venture capital prior to acquiring the business of Capital Publishing in 1977.

The United States venture capital industry is young and very small in relation to our nation's total capital markets. Its size and private nature have masked its impact upon the nation's economic process and even now, with the increased media exposure the industry has recently begun to receive, its observers have often focused only upon the investment returns earned. These significant returns, however, are directly related to the fact that venture capitalists primarily invest and develop new businesses in the most productive segments of the United States economy.

The role of venture capital investment is so broad and diverse that it has been difficult to develop a simple definition. We define the industry as follows:

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- VENTURE CAPITAL -
PARTICIPATING INVESTORS SEEKING TO ADD VALUE THROUGH ONGOING LONGER-TERM INVOLVEMENT WITH CONTINUING BUSINESS DEVELOPMENT

This highlights that venture capital is an involved rather than a passive investment orientation, offering valuable to assistance to operating managements during business development. Venture capital is a longer-term investment process which is quite unique in today's times which stress instant gratification.

Characteristics of venture capital investment are as follows:

- it involves potential equity/ownership participation for the venture capitalist
- it is a long-term investment discipline in which the venture capitalist usually must wait five to ten years for investments to provide significant return
- the venture capitalist usually has active ongoing involvement with the portfolio company, thereby adding value to the investment

The equity/ownership participation provides the unlimited upside potential rewards for the continuing involvement. The long-term investment orientation is perhaps the most critical discipline which must be recognized and supported from a policy planning perspective. Venture capitalists must not be concerned with daily, weekly, monthly or even annual performance, since most developments require three to five years to even demonstrate viability and five to ten years to achieve significant impact. Venture capitalist involvement does not seek to manage businesses, but rather to support the entrepreneurial management team -- the most critical component of the business development investment process. While venture capitalists often have large egos, they are most effective when their support of the entrepreneur -- who generally has an even larger ego -- gives the principal credit for the development to the entrepreneur. The venture capital investment relationship is really a working partnership rather than the more traditional objective lending or passive investor orientation. The most significant commitments and personal rewards are made and realized by operating managements -- the entrepreneurs that are the backbone of our nation's economic vitality.

In the past decade the role of venture capitalists in the life cycle of a new enterprise has expanded dramatically with different economic conditions and market pressures changing the orientation. Venture investors provide seed, startup, and development investments in the early stage of a new business as well as expansion financings through second, third and fourth rounds. Venture capitalists also provide funds for business acquisitions by management teams that often lead to the revitalization of dormant businesses that may be a forgotten division of a major corporation or a privately owned business in which family ownership is not concerned with future development. In general, venture capitalists provide financing for growing businesses until such time as credit oriented bank and institutional funds can be attracted or until the company has achieved the stature necessary for public ownership. In recent years, the public marketplace has been generally financing the best and the worst of new business developments -- those companies that have demonstrated their capability, often with venture capital investment involvement, and those companies that have failed to attract private development capital.

Most venture capital investments involve high technology primarily because technology development directly relates to productivity increase. What is a better business than one with a product or service that makes a customer more efficient or reduces product cost? Our Venture Economics division recently completed a study for the General Accounting Office (which has not yet been released) which indicates that in the past decade 54% by number and 61% by dollar amount of venture capital investments by the organized venture capital community have been related to productivity increase. Most businesses backed by venture capital involve applications of technology rather than radically new technology since it is important that these new businesses are able to become commercially viable within a three to five year period. There have been exceptions, such as in microelectronics, where venture capitalists backed the startup of Intel in the development of the micro-chip, as well as in genetic engineering -- two areas which many feel will have a substantial impact upon the future economic and social structures of the world.

Venture capitalists primarily back management teams that have identified an existing market need in a niche too small for major competitors. Successful business development is generally market driven in search of a product to fulfill demonstrated needs rather than by a product in search of a market. Successful innovation is really the building of an ongoing business rather than development of a product from a new technology.

Businesses backed by venture capital investors are generally small businesses, but hopefully they will become the major businesses of tomorrow. Recent evidence shows that these are the most productive businesses in the United States economy.

SMALL BUSINESS ATTRACTIVENESS TO THE U.S. ECONOMY

- is associated with 43% of the gross national product
- accounts for 55% of all private employment

- has a rate of growth of new employment among small high technology firms of almost nine times that of all other business sectors
- produces four times as many innovations per R&D dollar and 24 times as many as the largest firms
- accounted for over 50% of all scientific and technological developments in this century
- is responsible for over half of all new industrial inventions and product innovations
- demonstrates greater flexibility and responsiveness to change

The American Electronics Association 1978 study of 325 businesses that was so instrumental in convincing the U.S. Congress to support the 1978 capital gains tax reduction shows that:

- Although the mature (more than 20 years old) companies have on the average 27 times more employees than the young companies founded since 1955, in 1976 those young companies created an average of 89 jobs per company versus an average of only 69 new jobs per mature company.
- In 1976, for each $100 of equity capital that had been invested in the 77 younger companies founded in 1971 to 1975, they generated export sales of $70, spent $33 on research and development, paid $15 in Federal corporate income taxes, paid $5 in state and local taxes and generated $15 of personal Federal income tax revenue through the jobs created by that investment. The Federal government received an incredible $30 of tax revenue in 1976 alone for every $100 invested in these companies founded during 1971 to 1975.
- Earnings alone cannot finance the growth of young companies -- they need continuous injections of risk capital.

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Venture capital is indeed a young industry and its professionalism has only become recognized in the past few years. Prior to World War II most investments were made by wealthy individuals and families with occasional commitments by investment banking groups. From 1946 to 1958 the period could best be characterized as the American Research and Development pioneering era when a Frenchman, General George Doriot, became the grandfather our industry as it exists today by attracting a small amount of institutional and individual capital into a professionally managed vehicle for the long-term development process of venture capital investment.

With the Small Business Investment Act of 1958, Congress created Small Business Investment Companies (SBICs) which emerged to become the first vestiges of a real industry. This was a new tool, however, and in the learning process, managements almost destroyed the industry with their short term orientation. In 1968 a number of private firms began to be organized as independent firms to employ institutional and individual capital for venture investments and these form the core of today's industry. The recession of 1974 to 1975 weakened the industry, but paradoxically provided the disciplines that serve as the industry's principal strength today. When the public stock market for small company new issues virtually disappeared in 1974 and 1975, venture capitalists had to learn to work with their portfolio management teams over an extended period and found that this was the most successful way to develop new businesses and realize significant investment returns. Since the losers become evident early in a venture capital portfolio and the winners take three to five years to come evident, it was not until the mid-1970s that venture capitalists themselves achieved the necessary confidence. Further, it was not until 1978 and 1979, when a number of the early partnerships with seven to ten year lives began to distribute their holdings to investors that the institutional investors recognized the returns from venture capital firm investments could be significant.

Also in 1978, the capital gains tax reduction and a clarification of of Employee Retirement Income Security Act (ERISA) prudence requirements from the Department of Labor brought about a major capital infusion from investors. The perception of available venture capital for investment coaxed entrepreneurs away from large corporate environments and the process entered the period of its greatest activity. Even though the U.S. economy has operated in recession and a major credit crunch in intervening years, investment activity has continued. The liquidity of venture capital investors has enabled many businesses to avoid high interest costs and continue their development. In addition, many new businesses have been started to become significant producers in years ahead. The Economic Recovery Tax Act of 1981 further stimulated new venture investment through its reduction of individual capital gains taxes to a maximum of 20% and made business development more attractive to entrepreneurs through its incentive stock options.

In fact, there has been a great deal of talk lately that there may be too many dollars chasing too few investment opportunities. This, however, is an unfortunate and misguided impression. My organization and I talk to a wide spectrum of venture capitalists throughout the U.S. on a daily basis and they are being virtually overwhelmed by the flow and the quality of new investment opportunities. Since venture capitalists principally back experienced operating managers, it is important to note that one resource in abundant supply in the United States is the pool of frustrated corporate business managers. There are hundreds, or even thousands, of potential entrepreneurs, many of whom can be successful, for every professional venture capitalist. There are cases of too many venture capitalists chasing the same investment opportunities, as in the "nifty-fifty blue chip" orientation of many institutional investors, but most venture capitalists have been able to find an abundant supply of new investments. While we have been unable to quantify 1981 venture investment activity as yet -- we have a normal delay for adequate private reporting -- there is no doubt that this year's activity is running dramatically ahead of last year's record disbursements.

It is important to recognize the very small size of the United States professional venture capital industry when compared to the nation's total investment capital resources. If, for example, only 1% of the combined assets of public and private pension funds -- which are currently estimated to be approximately $730 billion -- could be attracted for venture capital investment, this would more than double the size of today's venture capital industry. I would estimate that today, pension fund investment in professionally managed venture capital firms is less than $600 million, or less than one-tenth of 1% of pension fund assets. At September 15, 1981, we estimate that the total capital, at cost, committed to organized venture investment is as follows:

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CAPITAL COMMITTED TO VENTURE INVESTMENTS

Private Venture Capital Firms	$2.1 billion
Limited Partnerships	
Family Offices	
Private Corporations	
Small Business Investment Companies	$1.5 billion
Equity/Growth Oriented	
Lenders	
Corporate Subsidiaries	$1.4 billion
Industrial	
Financial	
Total	$5.0 billion

SOURCE: Venture Economics Division
Capital Publishing Corporation

A chart attached as Exhibit A shows the rate of new capital committed to this process as well as the disbursements by the venture capitalists to portfolio companies over the past decade. The capital pool remained static from 1969 through 1977 at some $2.5 to $3.0 billion (with new fundings more or less equal with withdrawals). Venture capitalists were able to make investments substantially in excess of new commitments since they were investing from the prior assets of the pool and acquisitions of portfolio companies by larger corporations provided some liquidity. The effect of inflation since 1969, means that the pool has had very little real growth.

Looking at the components of the pool, private venture capital firms are the largest and most active segment and, as I will discuss in a moment, represent the major area for future growth. Small business investment companies have proven to be an effective tool for the industry and represent a unique partnership between the public and private sectors. Managed by the private sector, SBICs have effectively employed government assistance through tax incentives and leveraged funds provided through the SBA and the Federal Financing Bank. Dedicated subsidiaries, managed outside of the bureaucratic structures of major corporations, have also been effective.

Capital commitments to independent private venture capital firms only during the past few years have been as follows:

Capital Commitments

(Independent Private Firms Only)
(millions)

			(6 mos)	% of Total Capital Committed		
	1979	1980	1981	1978	1980	1981
Pension Funds	$ 53	$197	$120	31%	30%	29%
Insurance Companies	7	88	92	4	13	22
Individuals/Families	39	102	71	23	16	17
Corporations	28	127	69	16	19	17
Endowments/Foundations	17	92	46	10	14	11
Foreign	26	55	12	15	8	3
Total	$170	$661	$410	100%	100%	100%

Source: VENTURE CAPITAL JOURNAL

The human resource base of the venture capital industry is also quite small. While there are some 500 venture investment firms -- down from over 700 in the 1960s -- most investment activity is accomplished by perhaps 125 firms -- up some 30% in the past three years. Venture capital investment, with its ongoing personal involvement, is a unique discipline where needed experience is gained through apprenticeship. The industry is expanding today and must continue responsible growth, but it must be careful to avoid performance pressures that could bring about the short-term investment orientation that has seriously weakened the U.S.'s capital distribution process.

Recognizing the long-term nature of venture capital investment as well as the dominance of institutional investors in the U.S. capital marketplace, the future development of venture capital may well be dependent upon attracting increased investment in professionally managed private venture capital firms. Peter Drucker, in his 1976 book, "The Unseen Revolution; How Pension Fund Socialism Came to America," discusses the profound changes in U.S. capital markets brought about through the growing domination of investment capital by pension funds. "We are organizing a capital market totally unequipped to supply entrepreneurial capital needs," he said, and further pointed out that "the problems of the small but growing business, while different, are also dissimilar from those of the established big or fair-sized businesses. They require a different investment policy, different relationships to management, and a different understanding of business economics, management, and dynamics." As a solution, he proffered that, "what is needed, therefore, are new capital market institutions specifically provided to give these new, young, growing businesses the capital (and management guidance) they need; and which, at the same time, can act as investment vehicles suited for the fiduciary, the asset manager trustee." In the past decade, independent private venture capital firms have been developed to fulfill this role.

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PROFESSIONALLY-MANAGED VENTURE CAPITAL FIRMS

- are an investment vehicle for the distribution of institutional capital assets to be employed by and for new and innovative business development,
- Enable passive investors to participate in business development that requires active, ongoing involvement and specialized skills,
- serve as an interface to shelter fiduciary and institutional investors from the inherent risks of individual smaller business development investments
- have provided exceptional aggregate investment returns to investors over the past 10 years.

Exceptional investment returns are the best means to attract the capital required. The performance of many professionally managed venture capital funds in the past decade has been similar to the rate of growth of the Venture Capital 100 Index (attached hereto as Exhibit B). This index starts at December 31, 1972 (near the top of the bull market with the Dow Jones Industrial Average at 1027) and is a market performance composite of publicly traded companies backed by venture capitalists. The index growth rate of over 26% per annum is significant, especially in its comparison to other composites, but the chart also demonstrates other important factors: such investment must be viewed over the long term, short-term swings can whipsaw traders, and new businesses have been created for the public marketplace that can attract continuing public investment.

Increased investment by long-term investors could provide ample capital for the resurgence of economic productivity.
As we have testified in Washington, government involvement, however, must be indirect, providing support through incentives which would leave private market supply/demand forces as the dominate influence. The most important consideration is

to remove barriers and stimulate a climate for long-term investment. Our nation's total private capital resources are more than adequate, but the problem is to encourage distribution of a meaningful portion to long-term investment for new business development. A high new business birth rate can avoid domination of an economy by mature businesses, primarily concerned with self-survival, and can provide the vibrance needed for a broad-based growing economy.

EXHIBIT A

VENTURE CAPITAL INDUSTRY

ESTIMATED
FUNDINGS AND DISBURSEMENTS
(Millions of Dollars)

Year		New Private Capital Committed to Venture Capital Firms	Estimated Disbursements to Portfolio Companies	Public Underwritings of Companies with a Net Worth of $5 Million Or Less	
				Number	Amount
1980 (Est)	$1789	$900	$1,000	(135)	$ 822
1979		319	1,000	(46)	183
1978		570	550	(21)	129
			Capital Gains Tax Decrease		
1977	$ 466	39	400	(22)	75
1976		50	300	(29)	145
1975		10	250	(4)	16
1974		57	350	(9)	16
1973		56	450	(69)	160
1972		62	425	(409)	896
1971		95	410	(248)	551
1970		97	350	(198)	375
			Capital Gains Tax Increase		
1969		171	450	(698)	1367

Total Capital Committed to the Organized Venture Capital Industry
Estimate at September 15, 1981

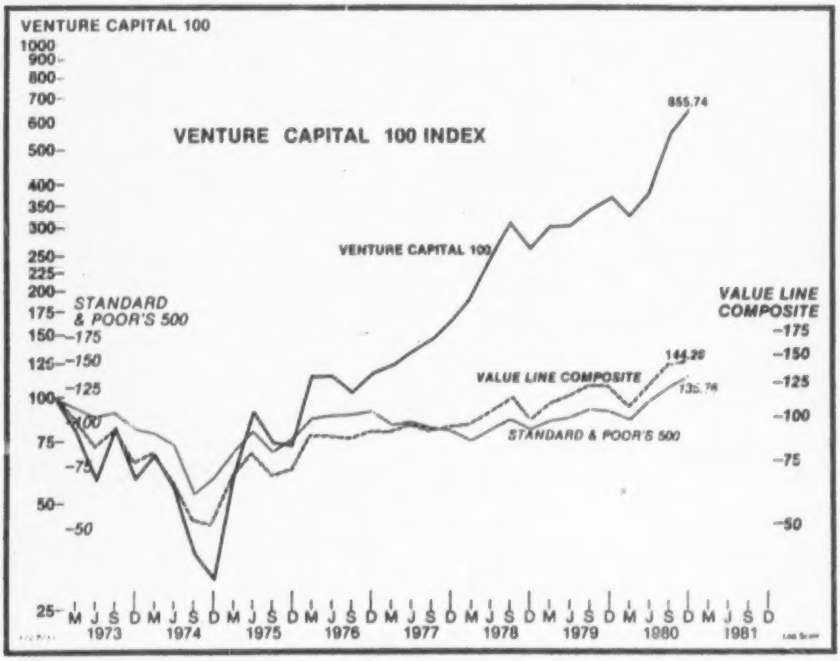
Independent Private Venture Capital Firms	$2.1 billion
Small Business Investment Companies	1.5 billion
Corporate Subsidiaries (Financial and Non-Financial)	1.4 billion
Total	$5.0 billion

This pool remained static from 1969 through 1977 at some $2.5 to $3.0 billion (with new fundings more or less equal to withdrawals).

SOURCE: Venture Economics Division
Capital Publishing Corporation

EXHIBIT B

MARKET PERFORMANCE COMPOSITE OF PUBLICLY TRADED VENTURE CAPITAL BACKED COMPANIES



	December 31, 1972	June 30, 1981
Venture Capital 100	100.00	692.51
Standard & Poors 500	118.05	131.25
Value Line Composite	114.05	154.99

Source: VENTURE CAPITAL JOURNAL

Representative LONG. Thank you, Mr. Hagopian. We also appreciate your invitation. We have been trying to get a group together to look at that. There are more Members of Congress than I think many of you assume that are greatly interested in this problem. It is not structured within one group in the Congress, but there are many Members that are really greatly concerned about the economy and looking at what high technology and investment capital and what you all are doing can do perhaps to lead us out of the impasse in which we find ourselves.

Mr. HAGOPIAN. Sir, I appreciate that and I do understand that. I guess what I was saying is that it is hard to appreciate what's going on in the technology companies and how exciting it is unless you are there and see what they're doing and hear them make those presentations. I guarantee that every day I am just amazed at the advances that are being made. And what's going on in Silicon Valley is just incredible. People are forming companies at supermarkets or at parent-teachers teas. You just have to be there to have an appreciation for it.

Representative LONG. Have you financed one formed in a supermarket?

Mr. HAGOPIAN. I have financed, I'm sure, one formed in almost every conceivable place in the world, some of which I probably shouldn't describe.

Representative LONG. Or probably shouldn't finance. [Laughter.]

Mr. HEIZER. Can I clarify what might appear to be a difference between Kip and myself on the capital gains tax issue and the budget?

Representative LONG. Surely.

Mr. HEIZER. If capital gains tax rates are lowered on all capital gains transactions, then the Treasury typically takes sort of this starting point position that that's going to have a negative impact on the budget because they assume the same velocity of transactions and they don't look at it over a long period of time. So we get into a big debate and it's very hard to get anywhere with Treasury. I'm sure the Securities Industry Association has worked very hard on that, and I understand that yesterday the Senate reduced the holding period from 12 months to 6 months and attached it to the utility bill.

But the point is I have been through those arguments many times, and you have also, on whether there is a negative impact or not on lowering capital gains. I think long term you'd have a budget plus from that.

But the proposal I was making was quite different. And it is let's not lower capital gains taxes further right now applied to everybody, even though Kip's suggestion would help Heizer Corp. more than my own suggestion. I am suggesting there be a differential between the capital gains tax for people trading securities, whether it be in 6 months, 1 year, or 2 years, or whatever, whose money is just going back and forth between investors and those who put it in industry.

Representative LONG. I recognize the distinction and the impact of doing that, and it seems to me it makes some sense. That is very difficult to do legislatively because you have the difficulty of drawing that line, but I think it's worthy of consideration.

Mr. HEIZER. Well, I think it would be pretty easy to identify whether or not when you bought a security that money went directly into industry or just went into stockholding. You'd have to prove on your tax return that you bought a new issue, and that's easy to do.

Representative LONG. Mr. Gevirtz.

Mr. GEVIRTZ. With regard to Mr. Hagopian's suggestion on getting together on a regular basis, I'd like to refer him and for the record refer to this report that your committee put out called, "Rebuilding the Road to Opportunity," which makes a suggestion on page 21 that we have "an Economic Cooperation Council." And I believe that Economic Cooperation Council would be just the place, if we ever develop such an organization, to develop that kind of dialog.

So I'd like to commend your committee for making that kind of proposal.

Representative LONG. There's no question that that is a continuing problem, and I appreciate your bringing out that we recognize it. I have not had an opportunity to look at that. I commend those to you. And if you would call my office and tell the staff, we would be happy to furnish you with a copy of them. There are two volumes. One is on the economic problems of the country, and the other on six other related subject matters, such as national security. We are trying to look for an alternative way in which to go and attack some of these problems, feeling that both the Democratic Party as well as the Republican Party have been bogged down in one direction for so long a period of time that it needs to look at new strategies, and that the Republican Party, in looking at it in a very partisan sense, has adopted a radical strategy that is not working and is not likely to work. Consequently, we are looking for alternatives to them, and I commend that to you.

I also commend to you—I know that Mr. Gevirtz is working on a book that he and I have talked about at some length in the past. What is it called, Don? "A Business Plan for America," if I remember correctly.

Mr. GEVIRTZ. Yes, "A Business Plan for America."

Representative LONG. It is in itself a part of this new thinking of trying to look at not basically changing the free enterprise system but taking recognition of the things that are changing in the country and in the economy in order to do such things as you were talking about, Mr. Heizer, that we somehow can't manage to get these done. We follow the existing pattern to such a degree that we somehow can't ever quite get them out of that pattern and get them to meet the new situations that are beginning to exist, like in the technologies that are developing so rapidly.

Mr. HEIZER. Could I make a further amplification on Kip's point that there be better industry communication with Congress?

Representative LONG. Surely.

Mr. HEIZER. I was chairman of the Task Force on Capital Formation of the White House Conference on Small Business. That was quite a large undertaking. It involved a lot of people and a lot of time. But the thing that became very clear to me in my role was that when you talk small business in the United States, that covers a lot. And the needs of the very, very small businesses are very different than the needs of the medium-sized small businesses. And then the rapidly growing larger small businesses have another set of conditions.

And the problem with that conference—we were trying to come out with one set of recommendations, and thus we got very snarled up in a lot of things in order to get votes. I think the conference was a worthwhile conference, but I don't think we really talked about big business and small business.

We have to start taking some different kinds of discussions with Mr. Shad, the Chairman of the SEC. And the point was trying to be made to Mr. Shad that even when you talk about publicly traded stocks and rules involving them, the SEC has to break down those discussions between the great big companies on the New York Stock Exchange and the mid-sized companies on the American Stock Exchange.

Representative LONG. Again drawing that distinction, Mr. Heizer, becomes extremely difficult. Where you draw those lines and how you treat them—I'm not speaking about from a business point of view within the industry itself like you in the banking business might do with the United Bank—but when the Government starts treating them differently, the drawing of those definitions and the drawing of those categories—Mr. Stults and I at one time served on the committee staff of the Small Business Committee, as I mentioned earlier, and one of the things we worked on—I always marveled at his ingenuity. He created an outside group which he became the head of. I thought that was very good. I always kid Mr. Stults about that. [Laughter.]

No, I know he was really interested in it and it was a way for him to feel that he was making a contribution. I was kidding about the other.

We spent about 2 years, I think, didn't we Walter, trying to define small business, period, and getting it out of the category of distinguishing it from large business. And when you start breaking it down into that that is very small and that that's medium small and that that's a little bit bigger and that that's not quite big but still within the category of small, it gets very, very difficult.

Mr. HAGOPIAN. I'm sure it is very difficult. I'd like to make a personal comment that I think simplicity is a virtue, and I'd just as soon do away with all those distinctions.

Representative LONG. Simplicity carried to an extreme, Mr. Hagopian, is not a virtue. The trouble is you are trying to explain world problems into a television microphone, and to say what's the matter with the world today in 20 seconds is not a virtue.

Mr. HAGOPIAN. I agree with that, too, but I'll stand by the statement nonetheless. I do feel, for example, trying to make a differentiation between investments that go directly into a small company or investments that are involved in trading of securities on the New York Stock Exchange—I think that is an interesting idea, and I guess in pursuit of my objective to stimulate entrepreneurship and small company formation I'll take what I can get.

But basically I don't think we should have rules that penalize you for getting large. One of the members of our industry said it very well. He said, "We're not really trying to finance small companies; we're trying to finance large companies in their infancy," we want them to become big companies. If you differentiate capital gains tax treatment in a way that has been suggested by many people. Ned included, you will depress values in the secondary trading markets which, of course, are part of the incentive as well.

Representative Long. Of course, Mr. Hagopian, that is where the question comes in of what your definition is as to where you become large, and when you start treating it exactly the same as already existing large concerns and remove the advantage it had in being able to grow to the point where it is, it's tough.

But I agree with the general thrust of what I think all four of you gentlemen are saying, that with respect to the fact of the return on the capital that is invested by the government, trying to do this, creation of jobs by small businesses, the innovation that comes from these small businesses, particularly in the high-technology firms—all of this is just something we need to give a great deal more emphasis to and pay a great deal more attention to than we have been willing to do. That's one of the reasons in trying to expose that that we are conducting these hearings today.

Let me ask a couple of questions, if I may, before we break up, that a couple of you might comment on. Being from the Sun Belt, it has always been of interest to me, and particularly since I for a number of years was in a related venture capital type of business—I never could quite understand, for example, why venture capital has not played the role in the expansion in the Sun Belt, particularly in the South, that it has in the other parts of the country. And one of you, I think Mr. Rider, was pointing out what happened in the Midwest—or someone was; Mr. Gervirtz was.

I wonder, Mr. Rider, if you might be willing to comment on why this regional growth has occurred rather than relatively uniform growth over the country, what might be done about it, how base a problem it is, and what additional information you might give us in that regard?

Mr. Rider. Mr. Long, I believe that the concentration in California and in Massachusetts is something which, without question, still exists. However, I see some definite signs that venture capital is at least expanding throughout the Sun Belt. Certainly it is creeping toward Louisiana from California. I think Texas is becoming very rapidly at best a hotbed of venture capital firms as well as of the little companies in which we invest. To be sure, it's moving the other way toward Louisiana from Georgia as well, as from Florida.

I think that we see that if there is a hole in venture capital it is in the Midwest. It's in the old industrial areas. The venture capital industry is not interested, quite frankly, in investing in a steel company. As you might expect, I suspect no one else is, either.

Representative Long. The new technologies really should not be regional, should they? There is no reason for them to really be regional.

Mr. Rider. The reason they have been regional—perhaps there was one IBM plant in San Jose from which 25 other companies were spawned, from each of which 25 more were spawned. If IBM had that plant in Detroit, perhaps the same thing would have happened.

I think you find that those things are happening. As it becomes more attractive in Michigan to build a plant to make robots, I think you'll find that even though that may be a General Motors plant, very quickly the technologists will spin off from that.

Representative Long. Does anyone else have anything to add to that general problem?

Mr. HAGOPIAN. People in our industry have talked about this a lot. Why is the Silicon Valley, for instance, such a hotbed of new company formation? And the theory that I like the best, that I have heard advanced, is that that happened to be where Mr. Shockley wanted to live, and he invented the transistor and it all grew from that. I don't know whether that's accurate or not.

Representative LONG. I think it perhaps is. I don't think it's as farfetched as it sounds. They get their birth somewhere, and they grow and others grow from that further.

Mr. RIDER. Congressman Long, in fact, I think you can see an isolated trend away from places like Silicon Valley in part because the labor supply is getting short, in part because real estate is getting very expensive, and in part because of urban sprawl. You'll find, for example, that many of the technology companies are now setting themselves up in the corridor running from Denver to Boulder, Colo., as well as in some other places.

Representative LONG. I read an article on that recently that a number had moved into Colorado.

Mr. RIDER. Yes.

Representative LONG. Mr. Gevirtz, you had something you wanted to add.

Mr. GEVIRTZ. Congressman Long, I think there is a certain entrepreneurial culture that can be created by those regional communities that want to, and that encourages people to take risks. And I also think there is one infrastructure that is almost critical, and that is a good university or college system. That always seems to encourage the activity of entrepreneurs.

Representative LONG. Mr. Gevirtz, while you're talking, may I ask you something else. I know you have given a great deal of thought to this overall economic strategy problem in the country to where it exists today and where it's going in the future because of the fact that you are disciplined to do it, partly because of the fact that you're trying to write this book on that subject, and it becomes difficult to do.

How do you see strengthening the venture capital industry and it playing an increasing role in this whole context of developing an overall economic strategy?

Mr. GEVIRTZ. I think, Congressman Long, that the United States should have a long-term industrial strategy. And I think that its priority and the basic guts of it——

Representative LONG. Are you talking about long-term planning?

Mr. GEVIRTZ. No, sir, I'm not.

Representative LONG. Why aren't you?

Mr. GEVIRTZ. I am not talking about it mostly because——

Representative LONG. I said that because I think you are, and I'm not against it, but I just think that you didn't want to use those words.

Mr. GEVIRTZ. I don't want to use the word "plan"—and we have had these discussions many times privately—because I think the semantics of it causes much too much in the way of provocation when we are communicating, particularly with my good Republican friends to my left—and most Republican friends I know are to the right—[laughter]. But I would prefer to talk really about the fact that this country should have a long-term industrial strategy, and that the basic guts of it should be to create a more nourishing environment for the entrepreneur because I think that is where the future is. I think if we do that and then we look at such things as the capital gains tax, it won't be very long before it will be clear to us that the capital gains taxes should be eliminated altogether, particularly as Mr. Heizer has suggested, for new investments in productive companies.

There is a whole series of other priorities that will come out of the United States having a long-term industrial strategy. For example, I believe that there should be some kind of targeting of our high-technology industries, those industries in particular that are being targeted by the Japanese and the French. If we don't decide that we are going to look at those industries in that manner, I'm afraid that eventually we are going to be nothing more than an agricultural society.

Representative LONG. I couldn't agree with you more, and I must say that I think from the comments that have been made here today with respect to everything from trying to get together to do something about overregulation, to making more money available, to changing policies with respect to venture capital, there is beginning to develop in the country the attitude that what we've got to do is we've got to defeat this adversarial relationship that has existed in the past between the three major functions, and that is between labor and government and industry. We've got to find some way and be able to no longer have that adversarial relationship and try to make it a cooperative relationship. We cannot compete, in my opinion, in an economic world where they do not have that if we continue it. It's a luxury we cannot afford.

I must say I think the most difficult of the three to bring in is not going to be the government. It is not even going to be labor, which is pretty tough and mean at times. I think it's going to require a change in attitude of the business community in order to do that. And I think it is absolutely essential. I think a minimum role has to be played by the government in order to stimulate the free enterprise system and do the types of things you're talking about, but I think it's got to be a recognized role. And the fact that that role has got to be recognized and got to be made a part of it is absolutely essential.

Excuse me, Mr. Hagopian.

Mr. HAGOPIAN. I want to make two observations. One is to commend you for your statement at the beginning in which you commented that while there was a small amount of venture capital in the system, it has produced disproportionately large benefits. Just how small I think is worthy of noting. Even with a doubling of venture capital in the last 4 years to $6.5 billion, that only represents 2 percent of the $320 billion of net private investment in 1981. So it's an extremely small percentage of the total investment.

The other observations I would make is that while one of the great strengths in the United States historically has been entrepreneurship, which has led to such great companies as Intel, Digital Equipment Corp., and so forth, we are now seeing in Japan—in addition to this great "partnership" of theirs, between the government, their large businesses, and their capital sources—a substantial increase in entrepreneurship as well. Something like 100,000 companies were formed in Japan in the last year. That's heretofore unheard of.

Representative LONG. And it is obvious without being said that we cannot continue to compete in a world market where we find ourselves up against those types of things unless we take some steps to counter it. I'm not suggesting necessarily what those steps ought to be, but they are going to require as a very minimum the cooperation between the three legs of this three-legged stool, and that is the government, the business, and labor.

Mr. **Hagopian**. One thing I'd continue to recommend is that Congress make a venture capital investment in our economic system by taking 1 percent of its capital—by eliminating that $8 billion of capital gains tax revenue—and invest it in small companies.

Representative **Long**. Mr. Heizer, and then we're going to quit.

Mr. **Heizer**. I'd like to tell you a little story that might interest you. I was born and raised in the Midwest, and our firm is not only the largest pool of venture capital—it's been that for a long time. It represented Sears for a long time, and Sears in some years put more money to work than everybody else together. That's how sorry the situation was.

But the problem I have in Chicago is people say, "Ned, why does a Chicago company representing Sears, as Heizer Corp., take all that money and put it in some other part of the country?"

In the 1950's, we put it to work in Boston. Why did we put it to work in Boston? Because the companies being started in Boston at that time were very easy to finance. They had Government backing through the efforts of Massachusetts politicians.

In the 1960's we put our money to work—sent Chicago money to primarily southern California. And as Kip says, it was because of the effort out there from the politicians' standpoint to get defense contracts and other contracts out there, and it was very easy to start new electronics companies in southern California in the early 1960's. Then it started shifting to San Francisco.

In the 1970's we exported Eastern money through Heizer Corp. and O'Hara Field to San Francisco primarily, because that was the easiest place.

Today we find the most attractive deals in Texas. And I submit that's because of the efforts of Lyndon Johnson and others to create a lot of action down there.

So the money goes where it's easiest to make the most money, frankly.

Now, relative to the steel industry, we became fascinated some years ago and made several stabs at what could we do to get Detroit to make cars that didn't rust out. If you live in Chicago, we have long winters and salt on the roads and the cars rust out. It's very maddening.

Well, we couldn't get anywhere with Detroit. They didn't care whether the cars rusted out. And a little company we put together became the technological leader in metal for things like cars that wouldn't rust out. Who bought our products? Japan, German companies, Swedish companies. We couldn't sell a pound of that metal in the United States. Finally, 5 years ago Detroit was getting worried about this problem so they talked to us. So we built a plant over in Toledo several years ago, and that little new plant right now is supplying over 25 percent of the metal for auto bodies in the United States.

But we've had the technology, and we shipped it out of the United States to these other countries because they wanted to use it. Now

Detroit is waking up, is my point. We have a $2 million investment in that company.

Representative LONG. Related to that, Mr. Heizer, is the interesting experience I have had. I have been back in Congress for 10 years and I have watched the automobile industry over those 10 years as we have dealt with the Clean Air Act. Automobile dealers have come from Louisiana, my district, and from all over the country and said, "Look, you are absolutely killing us with what you're doing with the restrictions on making us meet certain mileage requirements and restrictions on emissions." And every time the American automobile industry was running to the politicians and saying, "You have to change the law," the Japanese were going to their engineering departments and saying, "Build us a car that will meet those specifications." They did it, and they took the automobile industry away from America.

I voted with industry every time, and I look back on it and I really regret it. I think I made a terrible mistake.

Mr. HEIZER. There's a whole new attitude in Detroit on that.

Representative LONG. But we paid an awfully high price to learn that lesson.

Gentlemen, I do appreciate your coming and appreciate your taking the time to prepare the excellent statements that you prepared and submitted here today. I'd like one of these days to have a good opportunity to discuss with you the participation in venture capital in exploiting those things that come as a result of a fallout from government activity of stimulating major business movements. I think the space age and the space industry is an excellent current example of that. Perhaps the one that had the most effect on it—and there wasn't much venture capital at that time, at least in this form—was when the government gave all the land to the railroads and said, "Go open up the West."

These types of partnerships have been when we made the great successes in America. And we've got to look at some of those to try to find some way to move ourselves out of the economic situation that we find ourselves in today. I think a lot of it is going to come from the stimulation that people such as you, and people such as you finance, can give in helping us find the way.

Thank you very kindly, gentlemen. The subcommittee stands adjourned.

[Whereupon, at 10:45 a.m., the subcommittee adjourned, subject to the call of the Chair.]

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